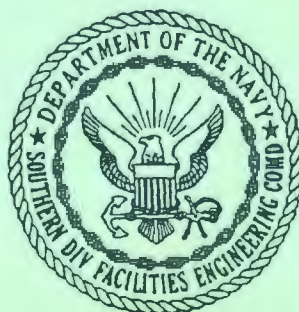


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DRAFT SITE CHARACTERIZATION REPORT SITE 100 AND 102 OUTLYING LANDING  
FIELD BRONSON NAS PENSACOLA FL  
2/1/2000  
TETRA TECH INC

# **Site Characterization Report for Sites 100 and 102**

**Outlying Landing Field Bronson  
Pensacola, Florida**



**Southern Division  
Naval Facilities Engineering Command  
Contract Number N62467-94-D-0888  
Contract Task Order 0086**

February 2000

**SITE CHARACTERIZATION REPORT  
FOR  
SITES 100 AND 102**

**OUTLYING LANDING FIELD BRONSON  
PENSACOLA, FLORIDA**

**COMPREHENSIVE LONG-TERM  
ENVIRONMENTAL ACTION NAVY (CLEAN) CONTRACT**

**Submitted to:  
Southern Division  
Naval Facilities Engineering Command  
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North Charleston, South Carolina 29406**

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**CONTRACT NUMBER N62467-94-D-0888  
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**FEBRUARY 2000**

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## ACRONYMS AND ABBREVIATIONS

bls	below land surface
CQAP	Comprehensive Quality Assurance Plan
DPT	direct push technology
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FID	flame ionization detector
GCTLs	Groundwater Cleanup Target Levels
GPS	Global Positioning System
ID	inside diameter
ug/L	micrograms per liter
NAD	North American Datum
NAS	Naval Air Station
NAVD	North American Vertical Datum
Navy	U.S. Navy
NEESA	Naval Energy and Environmental Support Activity
OD	outside diameter
OLF	Outlying Landing Field
OVA	organic vapor analyzer
PCB	polychlorinated biphenyl
PVC	polyvinyl chloride
SARA	Superfund Amendments Reauthorization Act of 1986
SCR	Site Characterization Report
SCTLs	Soil Cleanup Target Levels
SOUTHNAV- FACENGCOM	Southern Division, Naval Facilities Engineering Command
SPLP	synthetic precipitation leaching procedure
SVOC	semivolatile organic compound
TtNUS	Tetra Tech NUS, Inc.
USEPA	U.S. Environmental Protection Agency
VOC	volatile organic compound

## EXECUTIVE SUMMARY

Tetra Tech NUS, Inc. (TtNUS) has completed a Site Characterization Report (SCR) for Sites 100 and 102 at Outlying Landing Field (OLF) Bronson. Soil and groundwater quality data collected during the SCR investigation were evaluated and compared to the groundwater and soil cleanup level requirements established in Chapter 62-777, Florida Administrative Code (F.A.C.). The SCR was submitted to the Florida Department of Environmental Protection (FDEP) for approval.

### **TtNUS performed the following actions during the SA:**

- Reviewed the Preliminary Assessment Report and Phase I Environmental Report prepared for the facility to determine appropriate boring locations and monitoring well placements, and to identify the nearby surface hydrology and drainage;
- Conducted a site survey to identify utilities and to construct a site plan;
- Performed six direct push soil borings and collected soil samples for field screening of total petroleum hydrocarbons using an organic vapor analyzer;
- Installed six shallow permanent monitoring wells at depths ranging from approximately 5 to 12 feet below land surface (bls); and installed two temporary monitoring wells to approximately 5 feet bls.
- Collected groundwater samples from the monitoring wells for laboratory analysis of by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for volatile organic compounds (VOCs), Method SW- 846 8270C for semivolatile organic compounds SVOCs, Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and polychlorinated biphenys (PCBs).
- Collected nine surface soil samples and two subsurface soil samples for laboratory analysis for VOCs, for inorganic analysis (metals and cyanide), and for pesticides and PCBs.
- Surveyed monitoring well top of casing elevations and collected depth to groundwater measurements to evaluate the groundwater flow direction.
- Reviewed the validity of sample data and provided evaluation and interpretation in support of conclusions and recommendations.

## **Conclusions**

A shallow water table is present beneath Site 100 and Site 102, with groundwater encountered within 2 feet of the ground surface. At Site 102, the land surface is prone to flooding from the wetland area located adjacent to the Site.

No organic vapor concentrations were detected in the soil samples collected from the Sites. Surface soil samples analyzed from Sites 100 and 102, and the background sample location, identified VOCs, SVOCs, and metal parameters at concentrations below their FDEP Soil Cleanup Target Levels (SCTLs). Subsurface soil samples collected from the background sample location reported all tested parameters below laboratory method detection limits and below their FDEP SCTLs. No visual evidence of stained soils or chemical odors were detected during soil sampling activities.

Groundwater samples analyzed for Sites 100 and 102 and from the background sample location, reported all tested parameters below their laboratory method detection limits and below their respective FDEP Groundwater Cleanup Target Levels (GCTLs). Groundwater samples analyzed for Site 102 detected aluminum and iron at concentrations above their FDEP Groundwater Cleanup Target Levels. However, the inorganic sample analysis may not be a representative sample of the aquifer and may reflect turbidity of the water sample.

## **Recommendations**

Based on the findings of the SCR investigation, A No Further Action is recommended for Site 100. At Site 102 additional groundwater sampling is proposed to evaluate the groundwater aluminum and iron concentrations. It is recommended that two replacement monitoring wells be installed and sampled. The new wells should be designed with filter packs to minimize turbidity in the groundwater samples. The new wells should result in a more representative groundwater sample. The groundwater samples should be analyzed for inorganics only.

Surface soil samples and subsurface soil samples (if depth to groundwater permit) should be collected and analyzed for aluminum and iron by Synthetic Precipitation Leaching Procedure (SPLP). The proposed sampling activities will provide additional data to evaluate the aluminum and iron concentrations detected in the groundwater at Site 102 during the SCR investigation.

## **1.0 INTRODUCTION**

Tetra Tech NUS, Inc. (TtNUS), under contract to the Department of Navy, Southern Division, Naval Facilities Engineering Command (SOUTHNAVFACENGCOM) is submitting this Site Characterization Report (SCR) for Sites 100 and 102 at Outlying Landing Field (OLF) Bronson (the facility) located west of Pensacola, Florida (Figure 1). The SCR presents the results of a preliminary site characterization investigation prepared on behalf of the Navy at Naval Air Station (NAS) Pensacola under contract No. N62467-94-D-0888.

### **1.1 PURPOSE OF REPORT**

The purpose of the SCR is to document field investigation activities and to report the findings from soil and groundwater testing conducted at Sites 100 and 102 during September and October 1999 at OLF Bronson. The results of the investigation were evaluated to determine if additional soil and groundwater testing should be conducted at the Sites.

### **1.2 PHYSICAL DESCRIPTIONS OF SITES**

#### **1.2.1 Site Description**

##### **1.2.1.1 Site 100 – Former Fire-Fighter Training Area**

Site 100 is a former fire-fighter training area located approximately 600 feet east of the taxiway, as shown on Figure 2. The OLF Bronson Fire Department conducted practice burns at the training area during the period that OLF Bronson was active (1942–1958). Typical fire-fighting drills consisted of filling a shallow pit with water then pouring flammable material on top of the water and igniting it. Typically, material burned during the training exercises consisted of readily available flammable products such as waste aviation gasoline. Other flammable liquids consisting of kerosene, chlorinated solvents, diesel fuel, hydraulic fluid, and automobile gas may have been burned (Law Engineering and Environmental Services, Inc., 1997).

##### **1.2.1.2 Site 102 – Former Machine Gun Butt**

Site 102 is a former machine gun butt located approximately 800 feet east of the taxiway and 400 feet southeast of Site 100, as shown on Figure 2. The machine gun butt measures approximately 100 feet by 40 feet by 30 feet high. The mound was used by aircraft mechanics to calibrate 30- and

50-caliber aircraft machine guns. Bullets from aircraft guns were aimed at the machine gun butt to test and align aircraft gun sites. Remnants of bullets were discovered embedded in the machine gun butt (Law Engineering and Environmental Services, Inc., 1997).

### **1.2.2 Previous Investigations**

#### **1.2.2.1 Preliminary Assessment Report**

OLF Bronson was listed on the Federal Facilities Hazardous Waste Compliance Docket. In accordance with the Superfund Amendments and Reauthorization Act (SARA) Part 120, Naval Facilities Engineering Command tasked the Naval Energy and Environmental Support Activity (NEESA) to conduct a preliminary assessment on OLF Bronson. The preliminary assessment was conducted to evaluate if a potential threat to human health or the environment exists as a result of past or present operations conducted at the facility. The preliminary assessment included (1) the investigation of available records at NEESA and the Naval Facilities Engineering Command, (2) performance of a facility site inspection to complete documentation of past and present operations and disposal practices, and (3) interviewing employees at the facility with the assistance of NAS Pensacola representatives. Results of the investigation identified the fire fighting and machine gun butt training areas as areas of potential environmental concern with further site investigation recommended (Law Engineering and Environmental Services, Inc., 1997).

#### **1.2.2.2 Phase I Environmental Site Assessment, 1997**

In October 1997, Law Engineering and Environmental Services, under contract to the School District of Escambia County Florida Facilities Planning Department, initiated a Phase I Environmental Site Assessment at OLF Bronson. The objective of the assessment was to characterize the facility and adjacent properties with respect to actual and potential recognized environmental conditions. The assessment included review of the facilities location, present and past land uses, topography, soils, geology and hydrogeology, historical setting and document review, interviews, and site reconnaissance for environmental concerns.

Findings from the Phase I Environmental Site Assessment identified the former fire-fighter training area, Site 100, and the former machine gun butt, Site 102, as areas of environmental concern. The assessment results reported surface staining and petroleum-like odors at Site 100 and the potential for heavy metal contamination at Site 102. Heavy metal contamination was identified as a potential concern by association of metal particulates typically associated with firing ranges. The assessment recommended the collection of soil and groundwater samples at each of the Sites (Law Engineering and Environmental Services, Inc., 1997).

### **1.3 REPORT ORGANIZATION**

The Site Characterization Report is organized into eight chapters (Chapters 1.0 to 8.0). Chapter 1.0 presents the purpose of the SCR and includes, site descriptions, previous investigations at OLF Bronson, and the report organization. Chapter 2.0 contains information on the site background. Chapter 3.0 presents the physiographical and hydrological conditions. Chapter 4.0 identifies the investigative methodologies and equipment used during the investigation. Chapter 5.0 addresses the results of the analytical data. Chapter 6.0 contains the summary and conclusions based on the results of the investigation. Chapter 7.0 presents the professional review certification. Chapter 8 identifies references used in preparing the document. Supporting data are provided in the Appendices.

## 2.0 SITE BACKGROUND

Sites 100 and 102 at OLF Bronson (Figure 2) are located in Escambia County, in Florida's northwest coastal area, approximately 5 miles west of the Pensacola City limits. The 950-acre installation was constructed in the early 1940s. Prior to construction, the Sites were undeveloped and sparsely vegetated. Areas to the south, east, and north of the facility are undeveloped with the exception of some residential properties along U.S. Highway 98 and Perdido Bay located approximately 0.5 miles to the north (Law Engineering and Environmental Services, Inc., 1997).

The original name of the airfield, Tarklin Field, was changed to OLF Bronson during the installation construction activities. The base was used as training base for naval aviators during World War II and the Korean War. The western portion of the facility was used to maintain sea planes and train sea plane pilots. OLF Bronson was closed as an active airfield in 1950, but the runways were still used for touch-and-go landing for helicopter training. After 1950, base dismantling activities were conducted and by 1968, all buildings located at OLF Bronson were raised (Law Engineering and Environmental Services, Inc., 1997). Today, several unpaved roads or airstrips are present leading to a circular paved area.



## **3.0 SITE CONDITIONS**

### **3.1 PHYSIOGRAPHY**

The facility consists of generally flat terrain with surface drainage flowing by way of sheet flow towards a large wetland area located to the south and southeast. The wetlands area drains into Perdido Bay located approximately 0.5 miles to the west. The land surface at Sites 100 and 102 is primarily vegetated with grass and mature trees. The land surface soils are generally composed of a fine-grained sand. The Sites are bordered to the north by an asphalt paved landing mat, to the west by a runway, to the south by wetlands and undeveloped wooded properties, and to the east by wetlands located adjacent to residential properties (Figure 2).

### **3.2 HYDROGEOLOGY**

#### **3.2.1 Regional**

Sites 100 and 102 are located in the Coastal Plain Province which is a major physiographic division of the United States primarily consisting of unconsolidated sands, silts and clays. The Sites lie within the topographic subdivision of the Coastal Lowlands which consists of nearly level plains lying less than 100 feet above sea level. Pleistocene terrace deposits and Citronelle Formation, undifferentiated, comprise the surface deposits in the region. At Perdido Bay, the Pleistocene deposits are approximately 400 in thickness and consist of fine to coarse-grained sand with lenses of clay and gravel. The deposits, are underlain by Miocene coarse clastics comprised of fossiliferous sands with lenses of gravel and clay. The Miocene coarse clastics have a thickness of approximately 500 feet at Perdido Bay (Marsh 1966).

Groundwater is the principal source for domestic, agricultural, and industrial use in Escambia County. The Sand and Gravel Aquifer is the primary aquifer in Escambia County and the majority of the wells in the county draw water from this aquifer. The Sand and Gravel Aquifer is generally consists of quartz sand and contains numerous lenses and layers of clay and gravel. This aquifer extends from the water table down to various depths ranging from approximately 200 to 1000 feet. (Law Engineering and Environmental Services, Inc., 1997).

### **3.2.2 Site Specific**

Lithologic descriptions of soil samples collected from borings advanced during the SCR investigation, are used to evaluate the site-specific geology for Sites 100 and 102. Since the deepest borings were advanced to approximately 12 feet bls to facilitate monitoring well installations, discussion on sediment textures is limited to the upper 12 feet of sediments in the study area. The lithology of the sediments at Site 100 and 102 are composed of brown-to-tan and white fine-grained sands. Beneath Sites 100 and 102 the depth to the water table ranged from approximately 0.5 to 2 feet bls. Background borings, BRO-102-1S and BRO-102-2S, installed approximately 3,800 feet to the north of the study area, intersected the water table at approximately 6 feet bls. The land surface elevation ranges from approximately 14 feet above mean sea level (msl) at the Sites, to approximately 26 feet above msl at a distance of approximately 3,800 feet north of the study area. Boring logs are presented in Appendix A.

## 4.0 METHODOLOGIES AND EQUIPMENT

### 4.1 SOIL BORING ADVANCEMENT, SOIL SAMPLING AND ORGANIC VAPOR ANALYZER HEADSPACE ANALYSIS

#### 4.1.1 Soil Sampling

TtNUS conducted a soil assessment during September and October 1999 at Sites 100 and 102, and from a background location situated approximately 3,800 feet north-northwest of the study area along Bronson Road. Four soil borings BRO-100-1S, BRO-100-2S, BRO-100-3S, and BRO-100-4S were installed at Site 100 and two soil borings, 102-SS-01 and 102-SS-02 were installed at the background location. In addition to the soil borings, four surface soil samples 100-SS-01, 100-SS-02, 100-SS-03, and 100-SS-04 were collected at Site 100, three surface soil samples, 102-SS-03, 102-SS-04, and 102-SS-05 were collected at Site 102, and two surface soil samples, 102-SS-01 and 102-SS-02, were collected at the background boring locations. The soil boring locations for Sites 100 and 102 are provided on Figures 3 and 4, respectively. The locations of the background borings are shown on Figure 5. The soil boring logs are provided in Appendix A, and the soil field sampling forms are included in Appendix B.

Soil samples from vadose zone soils were collected from the monitoring well installation borings. Samples from these borings were collected for purposes of organic vapor screening and lithologic description. The soil samples which exhibited the highest vapor concentration were retained for laboratory analysis by United States Environmental Protection Agency (U.S. EPA) Method SW-846 8260B for volatile organic compounds (VOCs), Method SW-846 8270C for semivolatile organic compounds (SVOCs), Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and polychlorinated biphenyls (PCBs). The soil borings were advanced using direct push technology (DPT) utilizing a truck mounted direct-push, hydraulic soil probe using a 4-foot long stainless steel split-spoon barrel sampler. The DPT soil sampling technology allowed for the collection of samples from a discrete depth interval with minimal disturbance to the sample. Soil samples were collected for vapor screening from approximately ground surface to the water table. The DPT borings ranged in depth from approximately 6 to 12 feet bls to facilitate the monitoring well installations. The soil samples for laboratory analysis were collected using a stainless steel split spoon sampler (DPT), stainless steel spatula, and T-Handle Encore sampler.

Subsurface soil grab samples at the background locations were collected from soils lying just above the water table (sample collected 4 to 5 feet bls at 102-SU-01) and from 5 to 6 feet bls at 102-SU-02) since no organic vapors were detected in vadose zone soils at Sites 100 and 102. Since groundwater was present within 2 feet of the ground surface at Sites 100 and 102, no soil samples were collected from the vadose zone. Surface soil grab samples were collected at Sites 100 and 102 from the ground surface to approximately 0.5 feet bls. At Site 100, four surface soil samples were collected within an area that had been disturbed during previous site operations (former fire fighting training pit). That area is now identified by visual observation growth patterns. At Site 102, three surface soil grab samples were collected from the surface to approximately 0.5 feet bls. These samples were collected from locations aligned with the firing range to the machine gun butt.

#### **4.1.2 Soil Headspace Analysis**

Subsurface soil samples were collected from 2-foot intervals and screened using an organic vapor analyzer (OVA) with a Flame Ionizing Detector (FID). The method used to screen headspace samples included placing the soil sample in two 16 ounce jars; once half full, the jars were sealed with aluminum foil using a threaded metal ring and were allowed to equilibrate for approximately 5 minutes. The reading was obtained by piercing the foil with the FID probe. If organic vapors were detected, the same procedure was used on the second jar using a carbon filter to determine if methane was present. If present, the methane vapor concentration was subtracted from the unfiltered soil vapor measurement and an organic vapor concentration was reported for the sample. The sample with the highest reading was submitted to the laboratory for analysis. If no readings were detected, then the sample was collected from the vadose zone approximately 2 feet above the water table. The soil vapor concentration measurements are provided on the boring logs and on the soil field sampling logs included in Appendices A and B.

#### **4.1.3 Sampling and Decontamination Procedures**

Soil sampling protocols were performed in accordance with TtNUS Comprehensive Quality Assurance Plan (CQAP) No. 980038 (1999), approved by the FDEP on August 25, 1999. The TtNUS CQAP incorporates FDEPs' Quality Assurance Section's Standard Operating Procedures for Laboratory Operations and Sample Collection (DER-001/92), and USEPA Investigations Standard Operating Procedures Quality Assurance Manual (1996b). During the soil sampling, an equipment blank sample was inadvertently not collected. Proper equipment decontamination procedures were followed and the absence of significant (< SCTLs) levels of contaminants in any of the soil samples suggests little potential for equipment contamination. A trip blank sample

(sample TB090899-1), and a duplicate sample (sample 100-SS-DD) from soil sample 100-SS-02 was collected for laboratory analysis. All samples were iced immediately after collection and chilled to 4°C. Chain-of-Custody was maintained by Tetra Tech NUS until the samples were submitted to Ceimic Corporation, Rhode Island for analyses.

All equipment used in the collection of soil samples and downhole equipment used in the installation of the boreholes was decontaminated using the following procedures:

- Wash and scrub the equipment with a solution of Liquinox (or equivalent) and potable water.
- Rinse with potable water.
- Rinse with analyte-free water.
- Rinse twice with isopropanol.
- Rinse thoroughly with analyte-free water.
- Air dry (if possible).
- Wrap in oil-free aluminum foil (if appropriate).

## **4.2 WATER TABLE ELEVATION MEASUREMENTS**

Depth to groundwater measurements were collected from monitoring wells BRO-100-1S, BRO-100-2S, BRO-100-3S, and BRO-100-4S at Site 100 on September 10, 1999, and from monitoring wells BRO-102-3S and BRO-102-4S at Site 102 on September 9, 1999. Depth to groundwater measurements were collected from background monitoring wells BRO-102-1S and BRO-102-2S on October 27, 1999. Measurements were collected from the rim of the top of well casing using an electronic water level indicator. The water level measurements were collected to determine the depth to water in the surficial aquifer and to evaluate the groundwater flow direction. The depth to groundwater measurements are provided in Table 1.

## **4.3 MONITORING WELL CONSTRUCTION AND INSTALLATION**

On September 9, 1999, monitoring wells were installed at Sites 100 and 102 using the DPT drilling method. At Site 100, four permanent monitoring wells, BRO-100-1S through BRO-100-4S, were installed. Due to intermittent flooding at Site 102, two temporary monitoring wells, BRO-102-3S and BRO-102-4S were installed. Each of the wells installed at Sites 100 and 102 were constructed of 1.25-inch inside diameter (ID) schedule 40 poly vinyl chloride (PVC) riser and 0.01-inch slot well screen with silt trap and well bottom cap. The wells were completed at approximately 6 feet bls and were screened from 1 foot to 6 feet bls to bracket the water table. The annulus between the well casing and borehole was packed with medium sand within 6-

inches of the ground surface. The remaining annular space was sealed with bentonite. Each well was completed with approximately 2.5 feet of riser sticking up above the ground surface with the top of the well secured with a well cap. A steel casing set within a 4-inch thick, 2 foot by 2 foot concrete pad secures the casing stickup. Due to flooding in the Site 102 area, the temporary wells were removed and the boreholes sealed with bentonite after groundwater samples were collected from the wells. The locations of the monitoring wells are shown on Figures 6 and 7.

On October 12, 1999, two monitoring wells, BRO-102-1S and BRO-102-2S, were installed to provide background sampling points to assess groundwater quality hydraulically upgradient to Sites 100 and 102. The locations of the monitoring wells are shown on Figure 8. Each of the background monitoring wells were installed using DPT drilling method and were completed at a depth of approximately 12 feet bls. Each well was constructed of 1-inch ID schedule 40 PVC riser with 10 feet of 0.01-inch slot prepacked well screen set within a 2.5-inch outside diameter (OD) screened casing filled with medium sand. Medium sand was placed between the borehole annulus and the well screen OD casing from the bottom of the boring to approximately 6 inches above the screen. Fine sand was placed on top of the medium sand to within 6-inches of the ground surface. A bentonite seal was installed from the top of the fine sand to the ground surface. Approximately 2.5 feet of PVC riser pipe extended above the ground surface. A 4-inch thick, 2 foot by 2 foot concrete pad and steel protective casing for the well casing stickup was installed to complete the well installation. Monitoring well construction details are included in Appendix C.

Each well was developed using a peristaltic pump. During well development, field measurements of pH, temperature, specific conductance, and turbidity were monitored from the purge water generated. The wells were developed up to a maximum of one hour or until the field measurements became stable and purge water clear. Well development records are included in the groundwater field forms provided in Appendix D

Upon completion of the well installations, the horizontal and vertical surveys were performed by a Florida registered surveyor and mapper to determine the locations and elevations of groundwater monitoring wells and environmental sample locations. The horizontal locations were referenced to the Florida State Plane Coordinate System, North Zone, North American Datum (NAD) of 1983, 1990 adjustment (NAD 83/90), by ties to existing published monuments in the vicinity. Elevations were referenced to Mean Sea Level, North American Vertical Datum, 1988 Adjustment (NAVD 88) by ties to existing survey benchmarks in the vicinity. Control points and site features were established at each site from exiting monuments and benchmarks using differentially corrected Global Positioning Systems (GPS) Surveys.

#### 4.4 GROUNDWATER SAMPLING

Groundwater sampling of monitoring wells at Sites 100 and 102 was performed by TtNUS on September 9 and September 10, 1999. Background monitoring wells were sampled on October 27, 1999. Groundwater samples were collected for analysis by U.S. EPA Method SW-846 8260B for VOCs, Method SW-846 8270C for SVOCs, Methods SW-846 6010, SW-846 7471, SW-846 7470, SW-846 9010, SW-846 9066 for inorganic analysis (metals and cyanide), and Method SW-846 8081 for pesticides and PCBs. Groundwater samples were collected using teflon tubing and peristaltic pump.

Prior to sample collection, each well was purged of at least three well volumes. Temperature, pH, and conductivity readings were recorded at the time of sampling. Groundwater samples were iced immediately after collection and chilled to 4°C and shipped to Ceimic Corporation, for analysis. Chain of Custody was maintained by TtNUS until the samples were submitted to the laboratory for analysis. The groundwater sampling field forms are presented in Appendix D

Groundwater sampling activities were performed following procedures prescribed in TtNUS' CQAP with the exception; an organic trap bottles were not used during the collection of samples for extractable organics, pesticides, and PCBs. Quality control samples including a field blank (sample FB091099-01), equipment rinsate sample (sample ER091099-01), duplicate sample (sample 100-MW-DD-010 collected from monitoring well BRO-100-1S, matrix spike, and trip blank (samples TB091099-01) were collected and submitted to the laboratory for analysis.

## **5.0 SITE CHARACTERIZATION RESULTS**

### **5.1 GROUNDWATER FLOW DIRECTION**

Groundwater elevation measurements collected September 10 and October 27, 1999, from monitoring wells installed for the SCR investigation, indicates the general trend of the water table flow direction is southwest, discharging towards a wetlands area. This flow direction corresponds to the general slope of the site. The groundwater flow direction is depicted on Figure 9, and groundwater elevation measurements are provided in Table 1.

### **5.2 CHEMICAL COMPONENTS AND CONTAMINANTS**

#### **5.2.1 Soil Samples**

The evaluation of soil quality for Sites 100 and 102 is based on the parameter concentrations from soil samples collected during the SCR investigation. The soil parameter concentrations were compared to their Soil Cleanup Target Levels (SCTLs) for Direct Exposure for Residential Area, as established in Chapter 62-777 of the Florida Administrative Code (FAC) to determine if further assessment actions are necessary to address potential soil contamination.

##### **5.2.1.1 Site 100 - Former Fire-Fighter Training Pit**

Soil laboratory analytical results identified VOCs, SVOCs and inorganics (metals) in each of the four surface soil samples. All detected soil parameters were reported at concentrations less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

##### **5.2.1.2 Site 102 - Former Machine Gun Butt**

Soil laboratory analytical results detected VOCs, SVOCs, and inorganics (metals) in each of the three surface soil samples. All detected parameters were at concentrations less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.



### **5.2.1.3 Background Samples**

Subsurface soil analysis detected VOCs, SVOCs, and inorganics (metals) in each of the background subsurface soil samples. The laboratory results indicate the concentrations of VOCs, SVOCs, and metals in the subsurface soils are less than the SCTLs for Direct Exposure for Residential Area. Analysis of surface soils identified VOCs, SVOCs, and inorganic (metals) in one of two samples collected at the background location; however, the concentrations of VOCs, SVOCs, and inorganics are less than the SCTLs for Direct Exposure for Residential Area. A summary of the detected soil parameters is presented in Table 2, and the soil laboratory analytical data sheets are included in Appendix E.

## **5.2.2 Groundwater Samples**

Groundwater quality at Sites 100 and 102 is based on parameter concentrations from groundwater samples collected during the SCR investigation. The groundwater parameter concentrations were compared to their FDEP Groundwater Cleanup Target Levels (GCTLs), as established in Chapter 62-777 FAC to determine if further assessment actions are necessary to address potential groundwater contamination.

### **5.2.2.1 Site 100 - Former Fire-Fighter Training Pit**

The groundwater laboratory analysis of groundwater samples collected from the monitoring wells at Site 100 reported all VOCs, SVOCs, and inorganics (PCBs, pesticides, metals, and cyanide) are below laboratory detection limits and below their FDEP GCTLs. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

### **5.2.2.2 Site 102 - Former Machine Gun Butt**

Groundwater laboratory analysis collected from two temporary monitoring wells installed at the Site 102 reported all SVOCs, PCBs, and pesticides below laboratory detection limits and below their FDEP Groundwater Cleanup Target Levels. Acetone was the only VOC parameter detected in the groundwater. Acetone was detected at 6 micrograms per liter (ug/L) in the sample collected from temporary monitoring well BRO-102-3S. The acetone concentration is less than the FDEP Groundwater Cleanup Target Level of 700 ug/L for acetone. Metal analytes: aluminum; zinc; iron; and lead were detected in the groundwater sample from BRO-102-3S. The aluminum concentration of 1,230 ug/L and iron concentration of 1,860 ug/L exceeds the FDEP

Groundwater Cleanup Target Level of 200 ug/L for aluminum and 300 ug/L for iron. Aluminum (318 ug/L) and zinc (22.1 ug/L) were also detected in the groundwater sample collected from temporary monitoring well BRO-102-4S. The Aluminum concentration in BRO-102-4S exceeds the FDEP Groundwater Cleanup Target Level for aluminum. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

#### **5.2.2.3 Background Samples**

Groundwater laboratory analysis of groundwater samples collected from background monitoring wells BRO-102-1S and BRO-102-2S reported all VOCs, SVOCs, pesticides, and metals below laboratory detection limits and below FDEP Groundwater Cleanup Target Levels. A summary of the detected groundwater parameters is presented in Table 2, and the groundwater laboratory analytical data sheets are included in Appendix E.

#### **5.2.2.4 Quality Assurance Samples**

Acetone was detected at 8 ug/L in the field blank (sample FB091099-01) and at 10 ug/L in the trip blank (sample TB091099-01). Acetone is a common laboratory contaminant and is likely the source for the acetone detected in the groundwater sample from BRO-102-1S. Toluene was detected in the equipment rinsate (sample ER091099-01) at 2 ug/L but was below the laboratory method detection limits in all other groundwater samples.

## 6.0 SUMMARY AND CONCLUSIONS

### 6.1 SUMMARY

#### 6.1.1 Site 100 - Former Fire-Fighter Training Pit

Four surface soil samples and four groundwater samples were collected at Site 100. Groundwater was encountered within 2 feet of the ground surface which prohibited the collection of subsurface soil samples for laboratory analysis. The groundwater and soil samples for Site 100 were analyzed for VOCs, SVOCs, and inorganics (pesticides, PCBs, metals and cyanide). The results of the soil analysis identified VOCs, SVOCs and inorganic parameters in the soil; however, all detected parameters were reported at concentrations less than their FDEP SCTLs for Direct Exposure Limits for Residential Area as established in Chapter 62-777, F.A.C. The FDEP SCTLs are risk-based cleanup target levels for chemicals of concern based on direct human contact. Groundwater samples analyzed at Site 100 identified no VOCs, SVOCs, or inorganics in the groundwater above the laboratory method detection limit or above the FDEP GCTLs.

#### 6.1.2 Site 102 - Former Machine Gun Butt

Three surface soil samples and two groundwater samples were collected at Site 102. The samples were analyzed for VOCs, SVOCs, and inorganics. Groundwater encountered within 2 feet below ground surface, prohibited the collection of subsurface soil samples for laboratory analysis. Flooding at Site 102 also restricted access to the area for collecting samples during the sampling events. Surface soil samples collected at the Site 102 detected VOCs, SVOCs, and metal parameters in each of the surface soil samples; however, all detected parameters were at concentrations less than their FDEP SCTLs. Groundwater samples analyzed from two temporary monitoring wells detected no VOCs above FDEP GCTLs. Acetone was detected in one groundwater sample below the FDEP GCTL and is attributed to a laboratory artifact since the parameter was detected in both the field blank and trip blank quality assurance samples. The acetone concentration detected in the groundwater was less than the FDEP Groundwater Cleanup Target Level. Iron and aluminum were identified in the groundwater samples at approximately 6 times their respective FDEP GCTL.

### **6.1.3 Background Locations**

Two surface soil samples and two subsurface soil samples were collected at a background monitoring well locations. Analysis of the background samples indicated VOCs, SVOCs, and inorganics were reported below the laboratory method detection limits and less than their FDEP SCTLs. The analysis of groundwater samples collected from the background monitoring wells indicated VOCs, SVOCs, and inorganics were below laboratory method detection limits and less than their FDEP GCTL.

## **6.2 CONCLUSIONS**

Findings from the SCR investigation identified a shallow water table present beneath Sites 100 and 102, with ground water encountered within 2 feet of the ground surface. At Site 102, the land surface is prone to flooding from wetlands located adjacent to the Site. Water level measurements collected from site monitoring wells indicate the water table flow direction is generally toward the south-southwest across the study area. No visual evidence of stained soils or chemical odors were detected during soil and groundwater sampling activities.

Results from surface soil samples analyzed at Sites 100 and 102, and the background sample location for VOCs, SVOCs, and metal parameters were below their FDEP SCTLs. Subsurface soil samples collected at the background location reported all tested parameters below laboratory method detection limits and below their FDEP SCTLs. The soil analytical results indicates the soil at Site 100 and 102 do not pose a human risk-base health concern from residential land use as identified in Chapter 62-777, FAC.

Results from groundwater samples analyzed at Site 100 and the background sample location for VOCs, SVOCs, and metal parameters were below laboratory method detection limits and below their respective FDEP GCTLs. Groundwater samples analyzed at Site 102 for VOCs and SVOCs were below their respective FDEP GCTLs. Aluminum and iron concentrations were detected in the groundwater at Site 102 at concentrations above their respective FDEP GCTLs. However, the inorganic sample analyses may not be a representative sample of the aquifer, since aluminum and iron concentrations may reflect the increased turbidity of the water samples associated with temporary monitoring wells installed by hand-auger methods.

### **6.3 RECOMMENDATIONS**

Based on the findings of the SCR investigation, a No Further Action is recommended for Site 100. At Site 102, it is proposed that additional groundwater sampling be conducted to evaluate the groundwater aluminum and iron concentrations. It is recommended that two replacement monitoring wells be installed with a filter pack designed for the formation and installed into a larger diameter borehole. This should result in a more representative groundwater sample. The groundwater samples should be analyzed for inorganics only. Surface soil samples, and subsurface soil samples (if depth to groundwater levels permit), should be collected and analyzed for aluminum and iron by Synthetic Precipitation Leaching Procedure (SPLP). The proposed sampling activities will provide additional data to characterize the aluminum and iron concentrations detected in the groundwater at Site 102 during the SCR investigation.

## 7.0 PROFESSIONAL REVIEW CERTIFICATION

Site Characterization Report  
Outlying Landing Field Bronson  
Naval Air Station, Pensacola, Florida

This Site Assessment Report was prepared under the direct supervision of the undersigned geologist using geologic and hydrogeologic principles standard to the profession at the time the report was prepared. If conditions are determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of additional information on the assessment described in this report. This report was developed specifically for the referenced site and should not be construed to apply to any other site.

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Terry Hansen, P.G.  
Florida License No. 234

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Date

## 8.0 REFERENCES

FDEP (Florida Department of Environmental Protection), 1999. Technical Report: Development of Soil Cleanup Target Levels (SCTLs) for Chapter 72-770, F.A.C., May 26, 1999.

Law Engineering and Environmental Services, Inc., 1997. Report of Phase I Environmental Site Assessment, A portion of Outlying Landing Field (OLF) Bronson approximately 430-Acre Site Naval Air Station Pensacola, Florida October 20, 1997.

Marsh, Owen T., Geology of Escambia and Santa Rosa Counties, Western Florida Panhandle, Bulletin No. 46, Florida Geological Survey, 1966.

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## TABLES



**TABLE 1**

**GROUNDWATER ELEVATIONS  
OUTLYING LANDING FIELD BRONSON, PENSACOLA, FLORIDA  
SITES 100 AND 102**

Well No.	Total Depth of Well (ft)	Top of Casing Elevation, ft (MSL)	Date Measured	Depth to Free Product (BTOC)	Depth to Water, ft (BTOC)	Groundwater Elevation, ft (MSL)
BRO-100-1S	5	14.66	9/10/99	ND	1.46	13.20
BRO-100-2S	5	17.99	9/10/99	ND	0.81	17.18
BRO-100-3S	5	16.04	9/10/99	ND	0.80	15.24
BRO-100-4S	5	16.19	9/10/99	ND	0.75	15.44
BRO-102-1S	12	27.76	10/27/99	ND	6.30	21.46
BRO-102-2S	12	28.32	10/27/99	ND	6.61	21.71
BRO-102-3S	3	NS	9/9/99	ND	0.50	NA
BRO-102-4S	5	NS	9/9/99	ND	0.66	NA

**Notes:**

MSL - Mean Sea Level

BTOC - Below Top of Casing

ft - feet

ND - Not Detected

NS - Not Surveyed (Temporary Monitoring Wells)

NA - Not Available

**Table 2**  
**Summary of Compounds and Analytes Detected in Soils**

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

Sample No.	100-SS-01	100-SS-02	100-SS-03	100-SS-04	100-SS-DD
Sample Location	100-SS-01	100-SS-02	100-SS-03	100-SS-04	100-SS-02
Collect Date	9/8/99	9/8/99	9/8/99	9/8/99	9/9/99
Sample Depth (bls)	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.

DE1<sup>1</sup>/DE2<sup>2</sup>/LE<sup>3</sup> (mg/kg)

**Volatile<sup>4</sup> (mg/kg)**

Methylene Chloride	16/23/0.02	0.011	0.012	0.018	0.011	0.013
Acetone	780/5,500/2.8	0.13	0.11	0.52	0.11	0.079
2-Hexanone	5.1/34/1.4	0.017	--	--	--	--

**Semi-Volatile<sup>5</sup> (mg/kg)**

Di-n-Butylphthalate	7,300/140,000/47	--	--	0.048 <sup>J</sup>	0.039	--
bis (2-Ethylhexyl) Phthalate	76/280/3,600	1.5 <sup>J</sup>	--	0.040 <sup>J</sup>	0.058 <sup>J</sup>	0.25 <sup>J</sup>
Benzoic Acid	150,000/ * /110	--	--	0.061 <sup>J</sup>	--	--

**Pesticides<sup>6</sup> (ug/kg)**

None detected

**PCBs<sup>6</sup> (ug/kg)**

None detected

**Metals<sup>7</sup> (mg/kg)**

Aluminum	72,000/ * / ***	1,930	3,450	2,080	2,580	2,950
Iron	23,000/480,000/ ***	802	1,210	840	872	953
Lead	400/920/ ***	4.7	3.9	2.9	3.4	2.3
Manganese	1,600/22,000/ ***	2.1	3.4	2.0	2.3	2.5
Zinc	3,400/53,000/19	3.4	3.9	3.1	3.4	3.5

<sup>1</sup> DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

<sup>2</sup> DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

<sup>3</sup> LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

<sup>4</sup> SW-846 8260B, <sup>5</sup> SW-846 8270C, <sup>6</sup> SW-846 8080, <sup>7</sup> SW-846 6010B

<sup>J</sup> Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

\* Contaminant is not a health concern for this default exposure scenario.

\*\* Direct exposure value based on acute toxicity considerations.

\*\*\* Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

**Table 2 (Continued)**  
**Summary of Compounds and Analytes Detected in Soils**

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

Sample No.	102-SU-01	102-SU-02	TB090899-01	TB090999-01	TB101299-01
Sample Location	BRO-102-1S	BRO-102-2S	--	--	--
Collect Date	9/8/99	10/12/99	9/8/99	9/9/99	10/12/99
Sample Depth	4 to 5 ft.	5 to 6 ft.	--	--	--

DE1<sup>1</sup>/DE2<sup>2</sup>/LE<sup>3</sup> (mg/kg)

**Volatiles<sup>4</sup> (mg/kg)**

Methylene Chloride	16/23/0.02	0.011	0.009	0.002	0.002	--
Acetone	780/5,500/2.8	0.054	0.011	0.023	0.039	--
2-Butanone	--	--	--	0.006	0.015	--

**Semi-Volatiles<sup>5</sup> (mg/kg)**

bis (2-Ethylhexyl) Phthalate	76/280/3,600	3.6	--	NA	NA	NA
bis (2-Ethylhexyl) Phthalate	76/280/3,600	3.6	--	NA	NA	NA

**Pesticides<sup>6</sup> (ug/kg)**

None detected

**PCBs<sup>7</sup> (ug/kg)**

ne detected

**Metals<sup>8</sup> (mg/kg)**

Aluminum	72,000/ * / ***	2,710	533	NA	NA	NA
Iron	23,000/480,000/ ***	1,490	109	NA	NA	NA
Lead	400/920/ ***	1.3	0.6	NA	NA	NA
Manganese	1,600/22,000/ ***	2.1	--	NA	NA	NA
Zinc	3,400/53,000/19	3.3	--	NA	NA	NA
Chromium		3.2	--	NA	NA	NA
Vanadium		5.1	--	NA	NA	NA
Barium		--	1.4	NA	NA	NA

<sup>1</sup> DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

<sup>2</sup> DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

<sup>3</sup> LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

<sup>4</sup> SW-846 8260B, <sup>5</sup> SW-846 8270C, <sup>6</sup> SW-846 8081A, <sup>7</sup> SW-846 8082, <sup>8</sup> SW-846 6010B

<sup>9</sup> Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

\* Contaminant is not a health concern for this default exposure scenario.

\*\* Direct exposure value based on acute toxicity considerations.

\*\*\* Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

NA Not Analyzed

**Table 2 (Continued)**  
**Summary of Compounds and Analytes Detected in Soils**

Outlying Landing Field Bronson, Pensacola, Florida

Sites 100 and 102

Sample No.		102-SS-01	102-SS-02	102-SS-03	102-SS-04	102-SS-05
Sample Location		102-SS-01	102-SS-02	102-SS-03	102-SS-04	102-SS-05
Collect Date		9/8/99	9/8/99	9/9/99	9/9/99	9/9/99
Sample Depth (bls)		0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.	0 to 0.5 ft.
DE1 <sup>1</sup> /DE2 <sup>2</sup> /LE <sup>3</sup> (mg/kg)						
<b>Volatile<sup>4</sup> (mg/kg)</b>						
Methylene Chloride	16/23/0.02	0.012	0.013	0.009	0.009	0.009
Acetone	780/5,500/2.8	0.12	0.19	0.099	0.072	0.15
2-Hexanone	5.1/34/1.4	--	--	--	--	0.024
<b>Semi-Volatile<sup>5</sup> (mg/kg)</b>						
Di-n-Butylphthalate	7,300/140,000/47	0.077 <sup>J</sup>	0.043 <sup>J</sup>	0.083 <sup>J</sup>	0.038 <sup>J</sup>	0.047 <sup>J</sup>
Fluoranthene	2,900/48,000/1,200	0.048 <sup>J</sup>	--	--	--	--
Pyrene	2,200/37,000/880	0.04 <sup>J</sup>	--	--	--	--
bis (2-Ethylhexyl) Phthalate	76/280/3,600	0.071 <sup>J</sup>	--	0.68 <sup>J</sup>	0.091 <sup>J</sup>	--
Benzoic Acid	150,000/ * /110	--	0.12 <sup>J</sup>	0.086	--	0.036 <sup>J</sup>
<b>Pesticides<sup>6</sup> (ug/kg)</b>						
None detected						
<b>PCBs<sup>6</sup> (ug/kg)</b>						
None detected						
<b>Metals<sup>7</sup> (mg/kg)</b>						
Aluminum	72,000/ * / ***	2,440	1,220	666	718	889
Iron	23,000/480,000/ ***	363	444	358	287	541
Lead	400/920/ ***	5.1	3.3	2.2	0.64	3.8
Manganese	1,600/22,000/ ***	--	2.4	1.7	--	--
Zinc	3,400/53,000/19	2.8	2.8	2.6	--	2.2
Chromium	210/420/38	1	--	--	--	--
Selenium	390/10,000/5	0.46	--	--	--	--

<sup>1</sup> DE1= Direct Exposure limit for residential area from Chapter 62-777, F.A.C.

<sup>2</sup> DE2= Direct Exposure limit for industrial area from Chapter 62-777, F.A.C.

<sup>3</sup> LE= Leachability for groundwater limit from Chapter 62-777, F.A.C.

<sup>4</sup> SW-846 8260B, <sup>5</sup> SW-846 8270C, <sup>6</sup> SW-846 8080, <sup>7</sup> SW-846 6010B

<sup>J</sup> Indicates the presence of a chemical at a concentration less than the reporting limit and greater than the method detection limit.

\* Contaminant is not a health concern for this default exposure scenario.

\*\* Direct exposure value based on acute toxicity considerations.

\*\*\* Leachability values may be derived using the SPLP Test to calculate site-specific SCTLs or may be determined using TCLP in the event oily wastes are present.

**Table 3**  
**Summary of Compounds and Analytes Detected in Aqueous Samples**

Outlying Landing Field Bronson, Pensacola, Florida  
 Sites 100 and 102

Sample No.		FB091099-01	ER091099-01	TB091099-01	102-MW-003-01	102-MW-004-01
Sample Location		--	--	--	BRO-102-3S	BRO-102-4S
Collect Date		9/10/99	9/10/99	9/10/99	9/9/99	9/9/99
FDEP Groundwater Criteria (ug/L)*						
<b><u>Volatile<sup>1</sup> (ug/L)</u></b>						
Acetone	700.00	8	--	10	6	--
Toluene	40.00	--	2	--	--	--
<b><u>Semi-Volatile<sup>2</sup> (ug/L)</u></b>						
None detected		NA	NA	NA		
<b><u>Pesticides<sup>3</sup> (ug/L)</u></b>						
None detected		NA	NA	NA		
<b><u>PCBs<sup>3</sup> (ug/L)</u></b>						
None detected		NA	NA	NA		
<b><u>Metals<sup>4</sup> (mg/L)</u></b>						
Aluminum	200.00	NA	NA	NA	1,230	318
Zinc	5000.00	NA	NA	NA	21.2	22.1
Cadmium	300.00	NA	NA	NA	1,860	--
Lead	15.00	NA	NA	NA	10.5	--

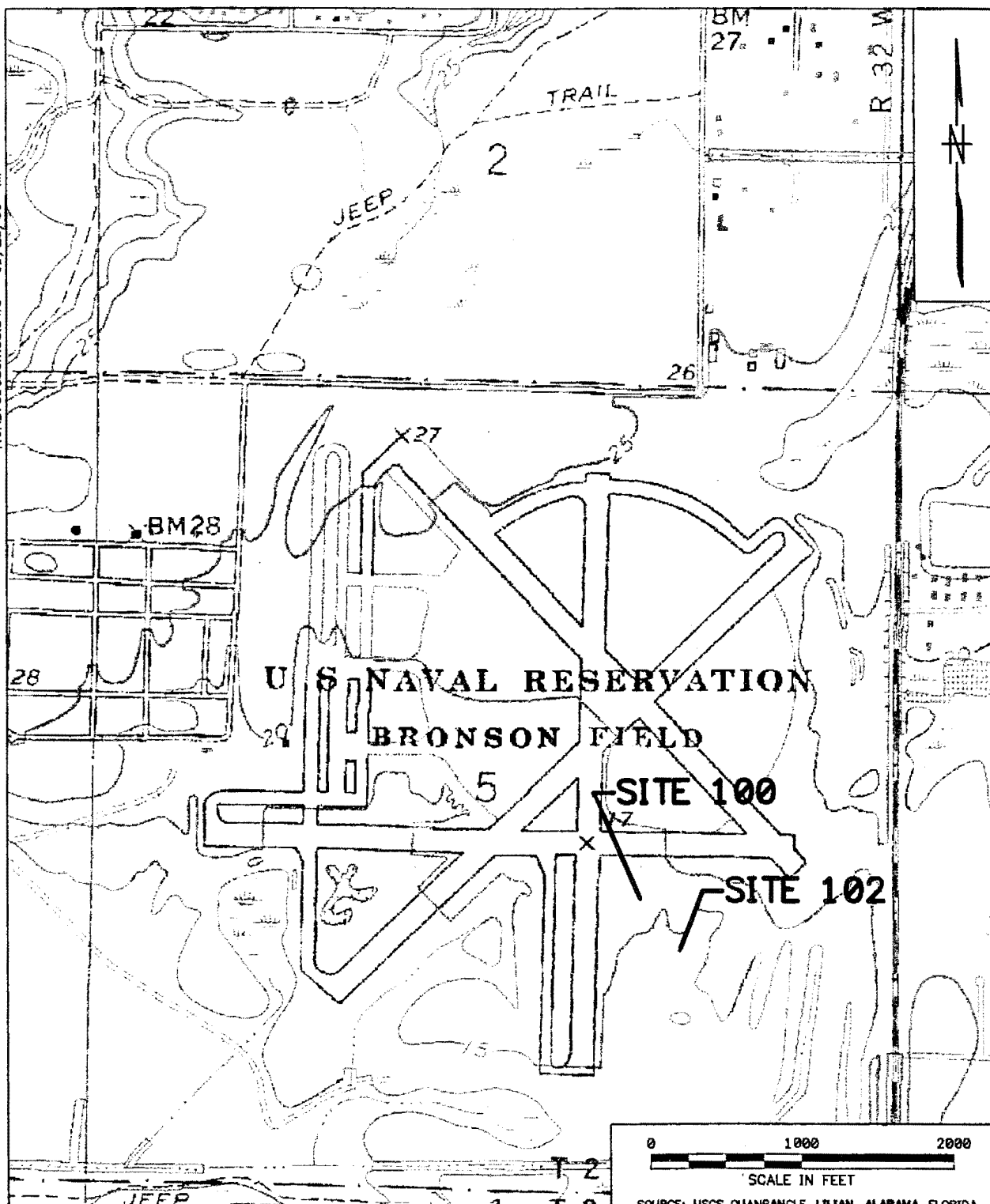
<sup>1</sup> SW-846 8260B, <sup>2</sup> SW-846 8270C, <sup>3</sup> SW-846 8080, <sup>4</sup> SW-846 6010B

NA Not Analyzed

\* As provided in Chapter 62-777, F.A.C.

## FIGURES

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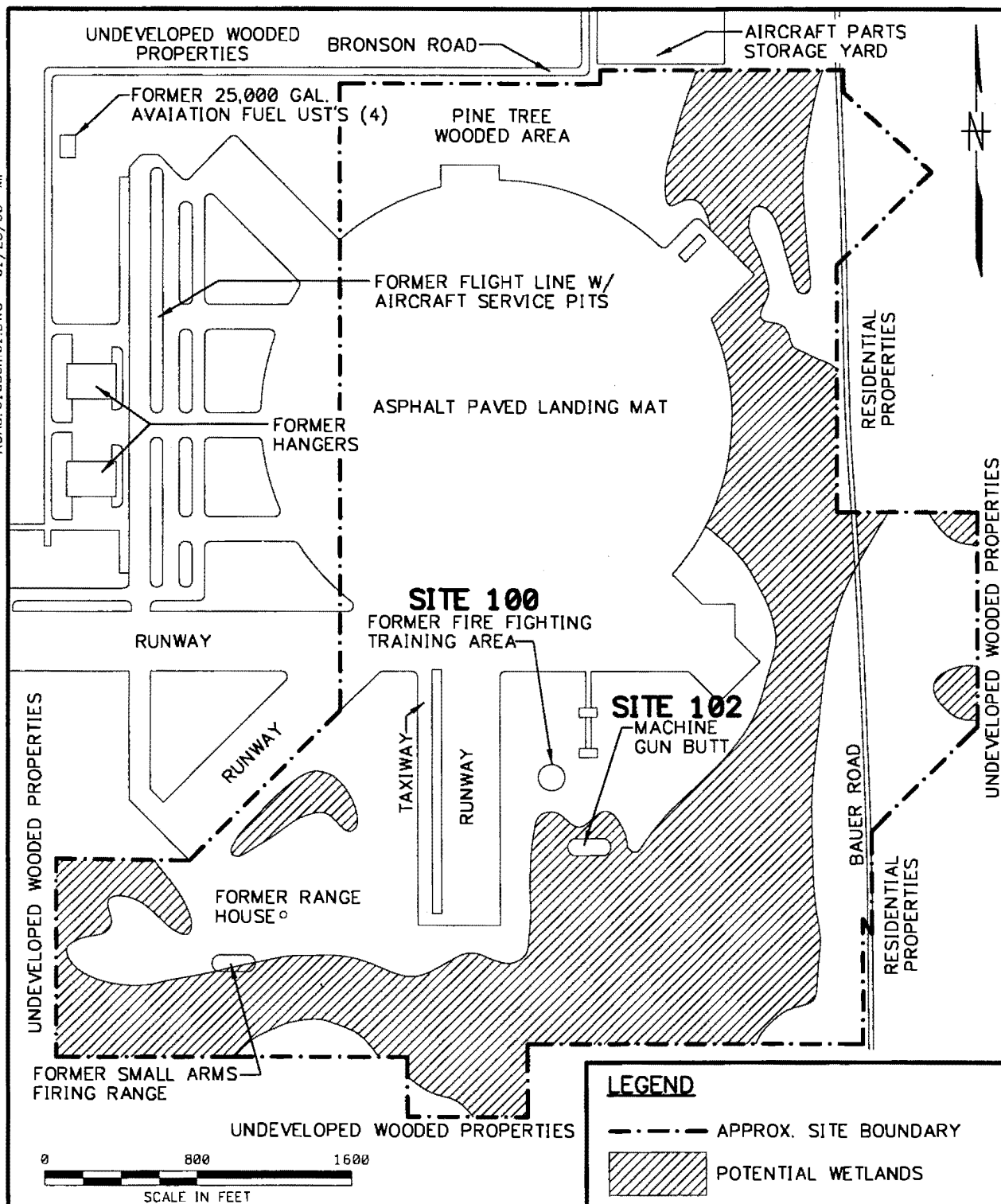
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COST/SCHED-AREA	
SCALE AS NOTED	



FACILITY LOCATION MAP  
SITES 100 AND 102  
OLF BRONSON  
NAVAL AIR STATION  
PENSACOLA, FLORIDA

CONTRACT NO. 0105	
APPROVED BY	DATE
APPROVED BY	DATE
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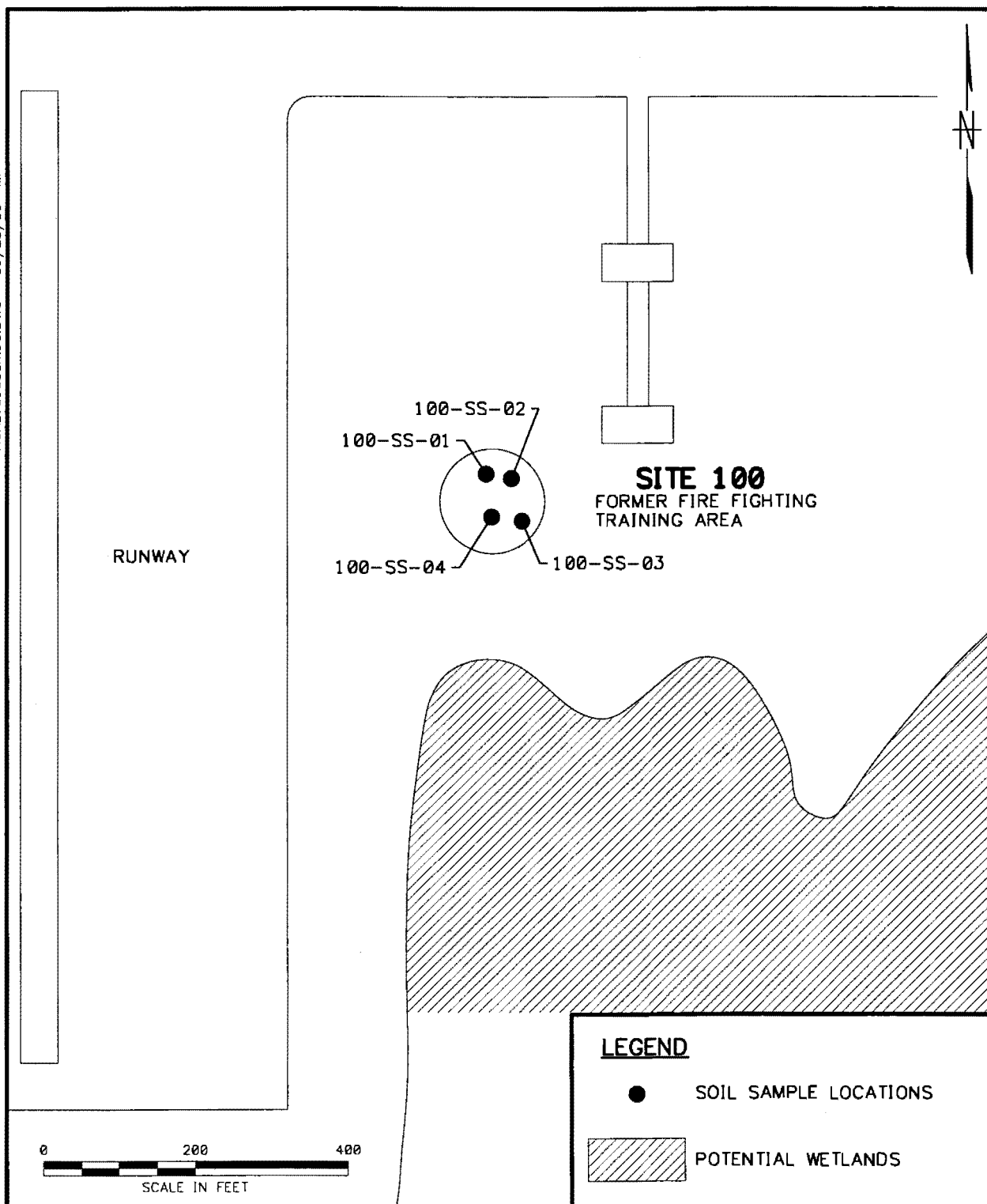
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COST/SCHED-AREA	
SCALE	
AS NOTED	



LOCATION OF SITES 100 AND 102  
OLF BRONSON  
NAVAL AIR STATION  
PENSACOLA, FLORIDA

CONTRACT NO. 0105	
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APPROVED BY	DATE
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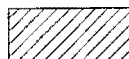




### LEGEND



SOIL SAMPLE LOCATIONS



POTENTIAL WETLANDS

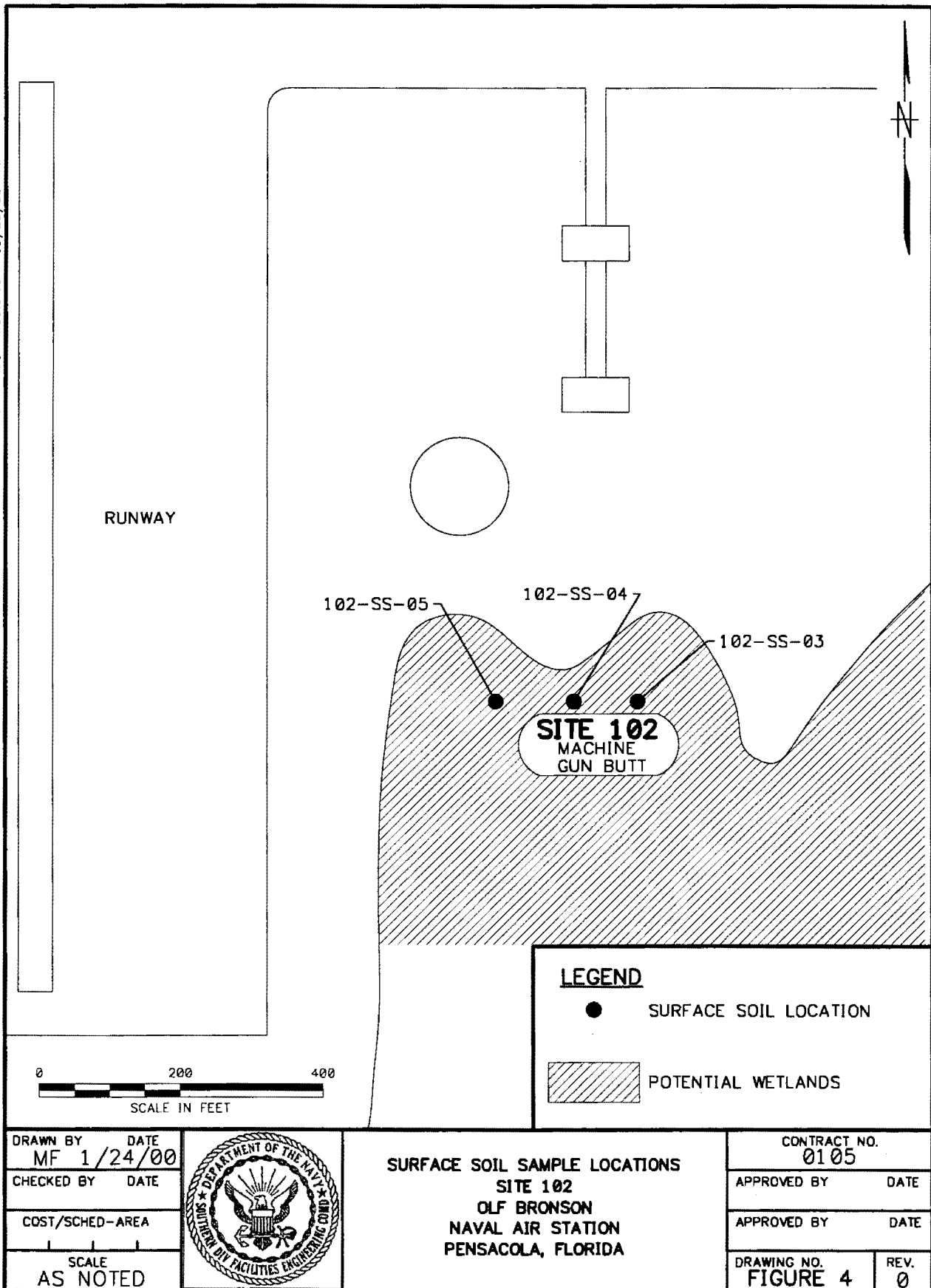
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SCALE AS NOTED	



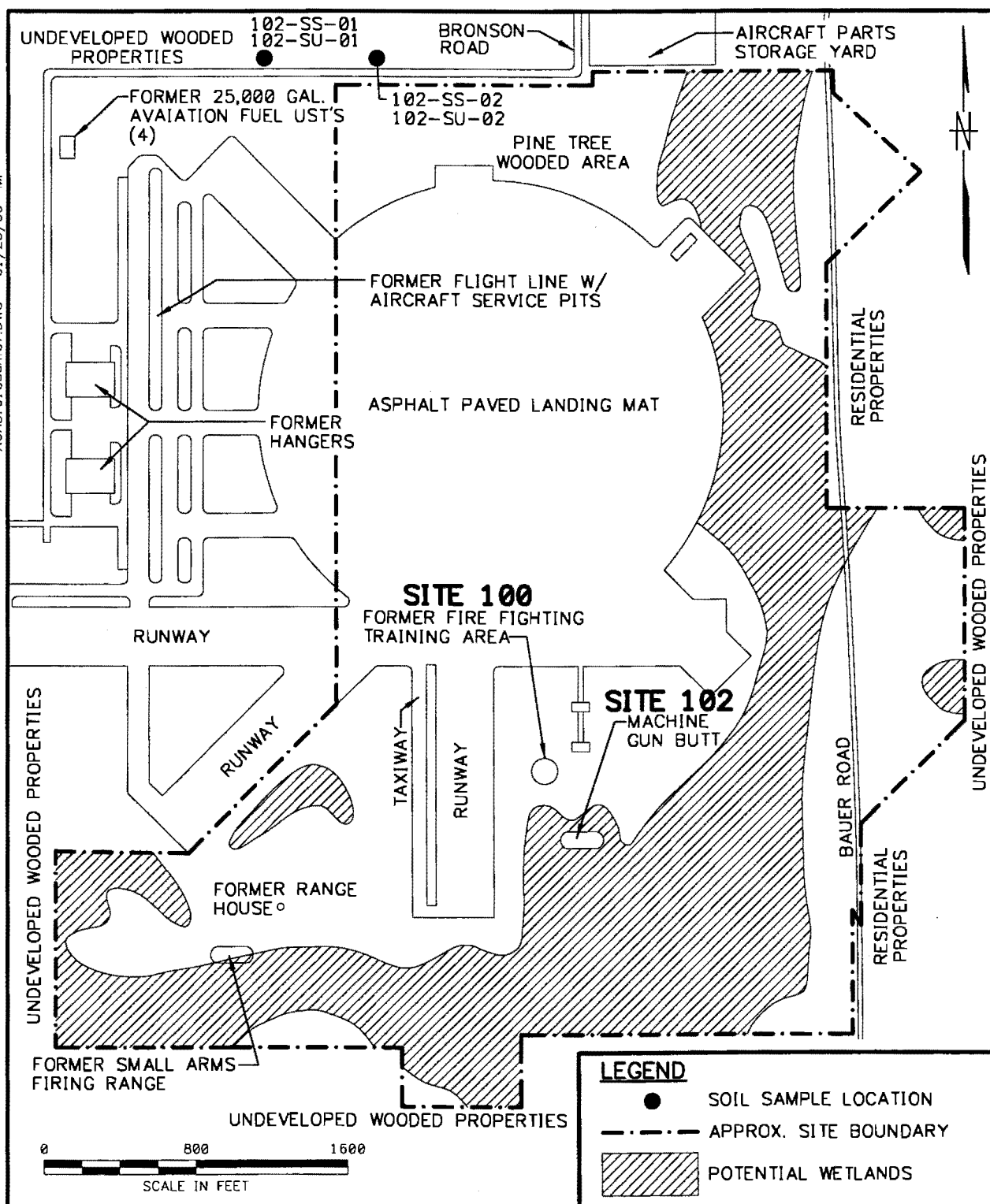
**SURFACE SOIL SAMPLE LOCATIONS**  
**SITE 100**  
**OLF BRONSON**  
**NAVAL AIR STATION**  
**PENSACOLA, FLORIDA**

CONTRACT NO. 0105	
APPROVED BY	DATE
APPROVED BY	DATE
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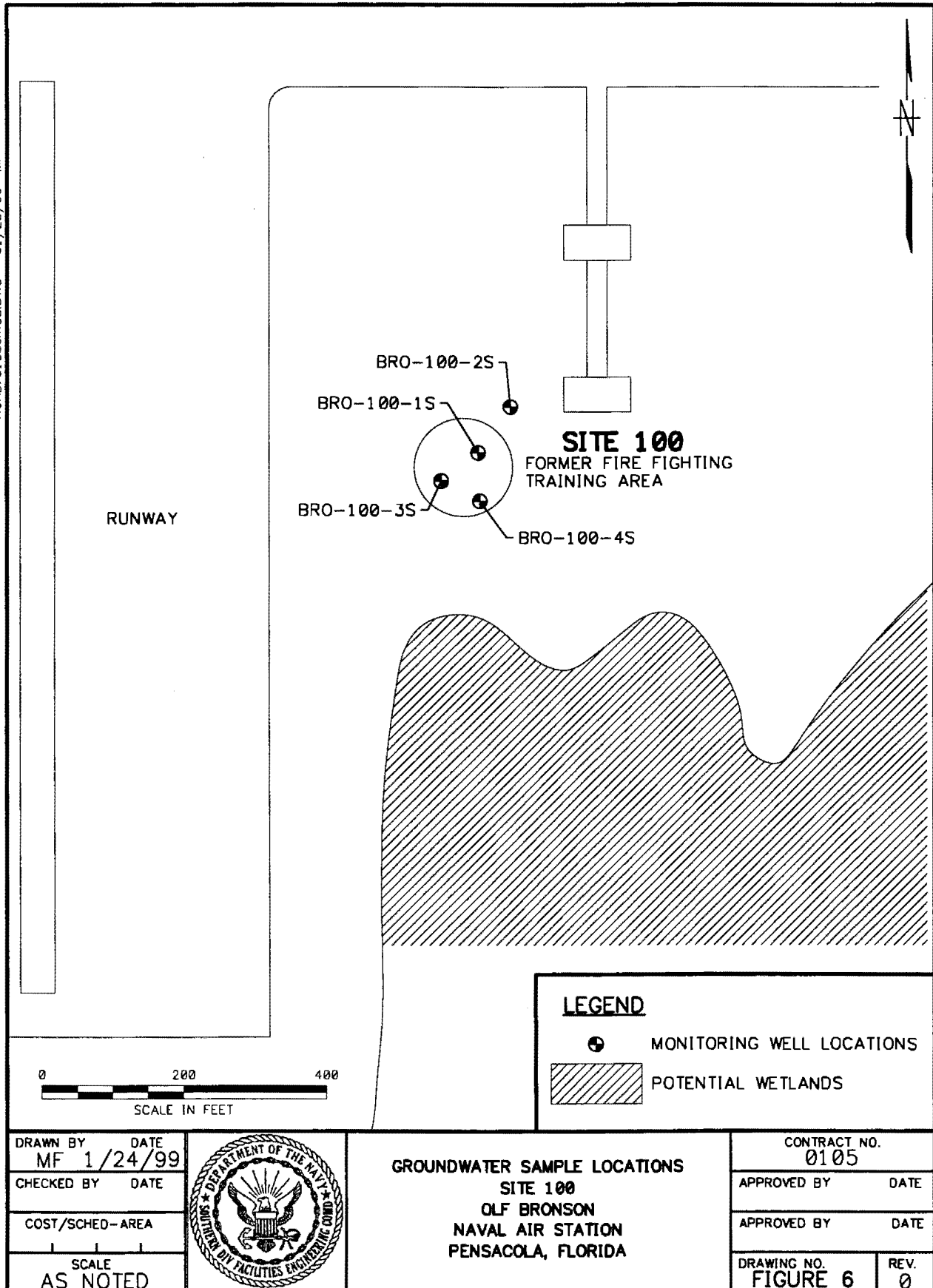
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COST/SCHED-AREA	
SCALE AS NOTED	

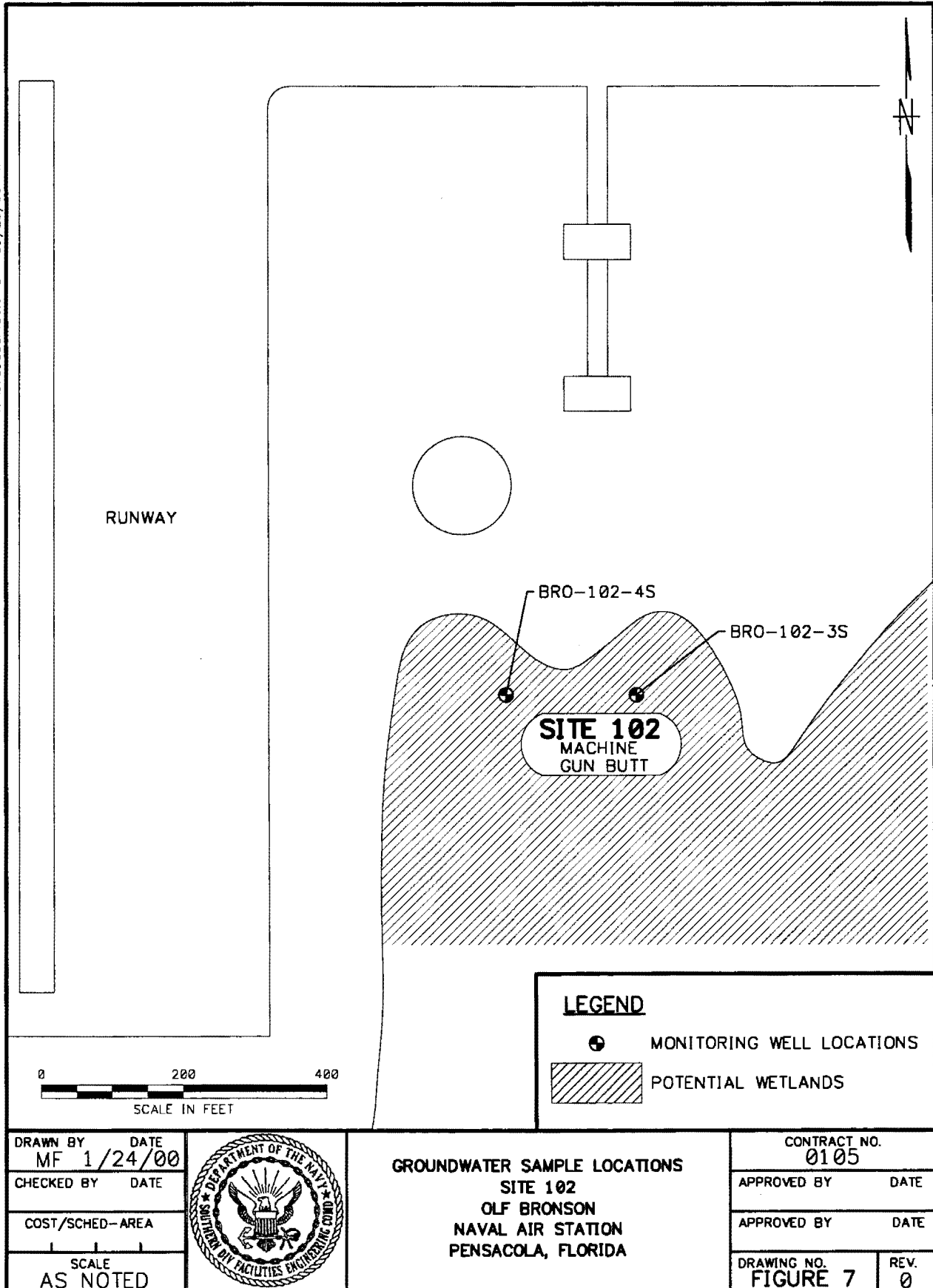


BACKGROUND SURFACE AND SUBSURFACE  
SOIL SAMPLE LOCATIONS  
OLF BRONSON  
NAVAL AIR STATION  
PENSACOLA, FLORIDA

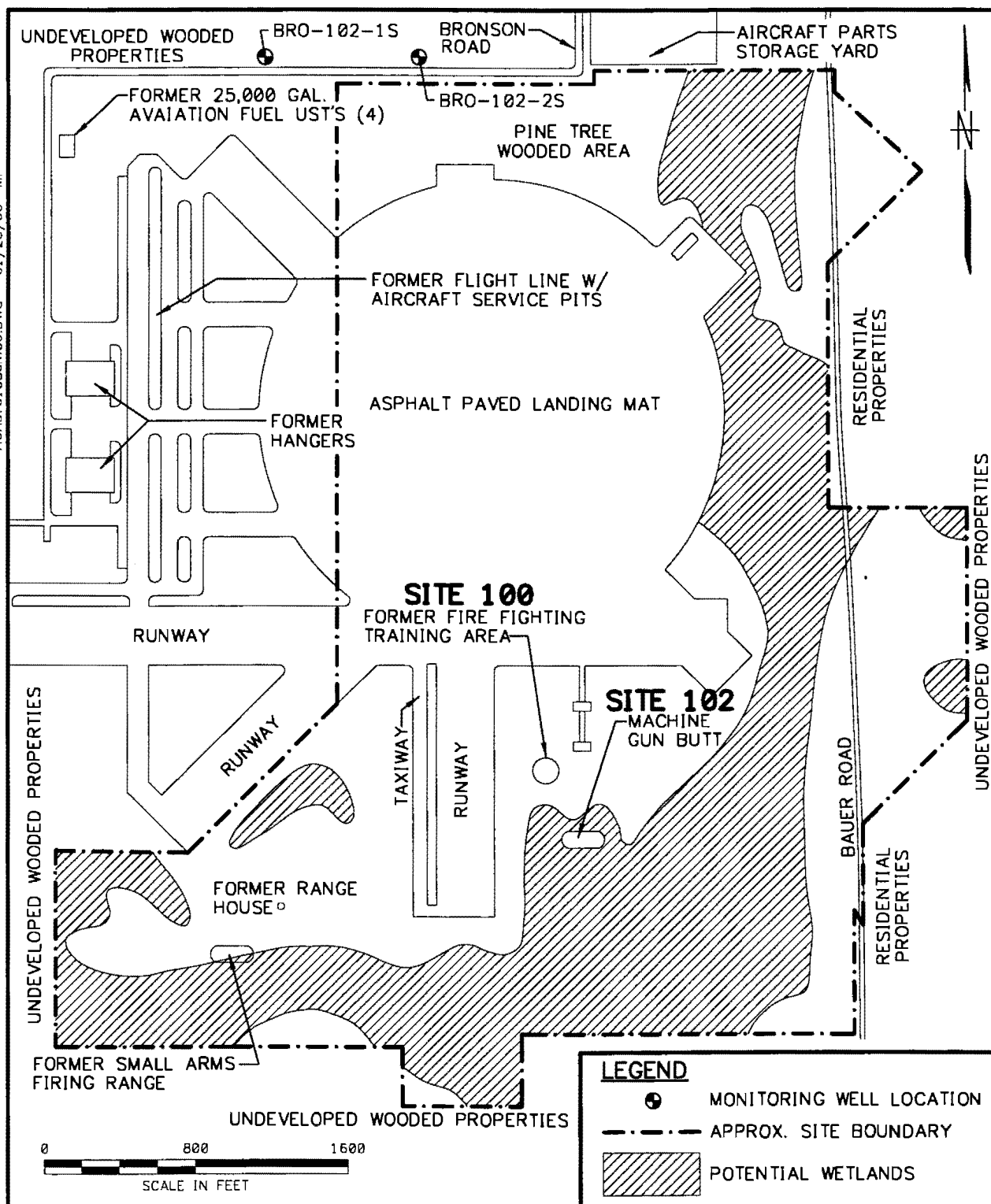
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ACAD: 01.05cm06.DWG 01/25/00 MF



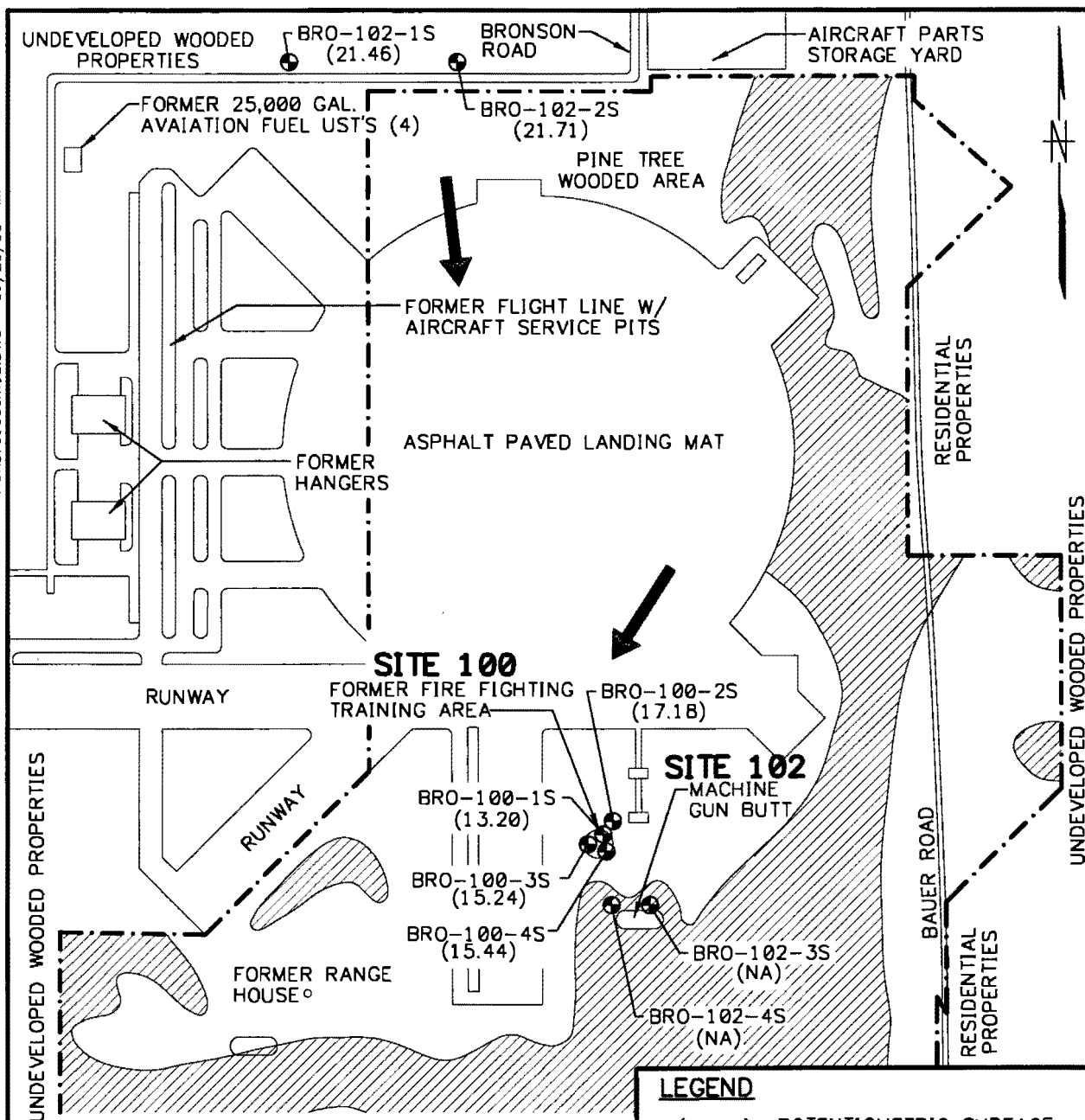
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COST/SCHED-AREA	
SCALE AS NOTED	



BACKGROUND GROUNDWATER  
SAMPLE LOCATIONS  
OLF BRONSON  
NAVAL AIR STATION  
PENSACOLA, FLORIDA

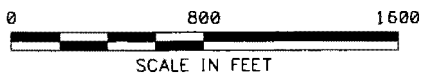
CONTRACT NO. 0105	
APPROVED BY	DATE
APPROVED BY	DATE
DRAWING NO. FIGURE 8	REV. 0

ACAD: 0105cm12.DWG 01/25/00 MF



**NOTES**

1. WATER LEVEL MEASUREMENTS COLLECTED 9/10/99 FOR WELLS BRO-100-1S & 4S
2. WATER LEVEL MEASUREMENTS COLLECTED 10/27/99 FOR WELLS BRO-100-2S & 3S



**LEGEND**

- (15.24) POTENTIOMETRIC SURFACE ELEVATION (FT MSL)
- (NA) ELEVATION NOT AVAILABLE
- ⊕ MONITORING WELL LOCATION
- ➔ GROUNDWATER FLOW DIRECTION
- - - - - APPROX. SITE BOUNDARY
- ▨ POTENTIAL WETLANDS

DRAWN BY MF 1/24/00 CHECKED BY DATE COST/SCHED-AREA SCALE AS NOTED		<b>GROUNDWATER FLOW MAP OF BRONSON NAVAL AIR STATION PENSACOLA, FLORIDA</b>	CONTRACT NO. 0105 APPROVED BY DATE APPROVED BY DATE DRAWING NO. <b>FIGURE 9</b> REV. 0
--	--	---	---

**APPENDIX A**

**BORING LOGS**



Page 1 of 1

PROJECT NAME: WASP 6LF Brouse BORING NUMBER: BRO-100-15  
PROJECT NUMBER: \_\_\_\_\_ DATE: 4/9/97  
DRILLING COMPANY: TEG GEOLOGIST: \_\_\_\_\_  
DRILLING RIG: DPT DRILLER: J. Stevenson

[illegible]

\*\* Include monitor reading in 5 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area  
Background (ppm): ☐

Converted to Well: Yes ☒ No ☐ Well I.D. #:

Page 1 of 1

PROJECT NAME:	<u>NHSP GLE Bronson</u>	BORING NUMBER:	<u>BRC-100-025</u>
PROJECT NUMBER:	<u>CTO 0086</u>	DATE:	<u>9/9/99</u>
DRILLING COMPANY:	<u>TEG</u>	GEOLOGIST:	
DRILLING RIG:	<u>DPT</u>	DRILLER:	<u>J. Stevenson</u>

[illegible]

\*\* Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Converted to Well: Yes ☒ No ☐ Well I.D. #: \_\_\_\_\_

### Drilling Area

Background (ppm): 10



Page 1 of 1

BORING NUMBER: B20-100-45

DATE: 9/9/99

**GEOLOGIST:**

DRILLER: J. Stevenson

\* When rock coring, enter rock brokenness.

\*\* Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Converted to Well: Yes   n  

**No**

Well I.D. #:

Drilling Area  
Background (ppm): ☐

PROJECT NAME: NAS Pensacola / OLF Bronson  
PROJECT NUMBER: CTO 86  
DRILLING COMPANY: TEG  
DRILLING RIG: DPT

BORING No.: B20-102-15  
DATE: 10/12/99  
GEOLOGIST: \_\_\_\_\_  
DRILLER: Joe Stenensen

[illegible]

\* When rock coring, enter rock brokenness.

\*\* Include monitor reading in 6 foot intervals @ borehole. Increase reading frequency if elevated response read.

Remarks:

Drilling Area  
Background (ppm):

Page 1 of 1

BORING NUMBER: BR0-102-25  
DATE: 10/12/99  
GEOLOGIST: \_\_\_\_\_  
DRILLER: J. Stevenson

\* When rock coring, enter rock brokenness.

### Drilling Area

Background (ppm): ☒

Converted to Well: Yes ☒ No ☐ Well I.D. #: Same

## **APPENDIX B**

### **SOIL SAMPLING FIELD FORMS**

## Page 1 of 1

Sample ID No.: 1025401  
Sample Location: BRO-102-15  
Sampled By: A. Frankler  
C.O.C. No.: \_\_\_\_\_

- Type of Sample:  
☒ Low Concentration  
☐ High Concentration

Date: 9/8/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1120	4-5'	Lt. Brn.	Sand - Moist
Method: DPT			
Monitor Reading (ppm): 0			


Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

[illegible]**MAP:**

Borehole for background well  
BR0-102-15

**Signature(s):**

**Duplicate ID No.:**

Signature(s): 



# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name:

Project No.:

NAS Pensacola / OLEF B. 201  
C70 086

Sample ID No.:

Sample Location:

Sampled By:

C.O.C. No.:

1024501

Upgradient Site 102

H. Franklin

☒ Surface Soil

☐ Subsurface Soil

☐ Sediment

☐ Other:

☐ QA Sample Type:

Type of Sample:

☒ Low Concentration

☐ High Concentration

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>9/6/99</u>	<u>0-6"</u>	<u>Greyish</u>	<u>Sand</u>
Time: <u>1030</u>			
Method: <u>SSSpoon</u>			
Monitor Reading (ppm): <u>0</u>			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>TCL VOC</u>	<u>5 g Enclave X 3</u>	<input checked="" type="checkbox"/>	
<u>SVOC, Pest, PCB, Metals, CW</u>	<u>16 oz G</u>	<input checked="" type="checkbox"/>	

## OBSERVATIONS / NOTES:

## MAP:

Background Location - same as well BRO-102-125

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

*[Handwritten Signature]*

Project Site Name: <u>NASP OLF Bronson</u>		Sample ID No.: <u>1025502</u>
Project No.: <u>CTO 0086</u>		Sample Location: <u>Background</u>
		Sampled By: <u>R. Franklin</u>
		C.O.C. No.: _____

<input checked="" type="checkbox"/> Surface Soil <input type="checkbox"/> Subsurface Soil <input type="checkbox"/> Sediment <input type="checkbox"/> Other: _____ <input type="checkbox"/> QA Sample Type: _____	Type of Sample: <input checked="" type="checkbox"/> Low Concentration <input type="checkbox"/> High Concentration
--	---

GRAB SAMPLE DATA:			
Date: <u>9/8/99</u>	Depth: <u>0-6"</u>	Color: <u>Lt. Brown</u>	Description (Sand, Silt, Clay, Moisture, etc.): <u>Sand</u>
Time: <u>1155</u>			
Method: <u>SS Spoon</u>			
Monitor Reading (ppm): <u>0</u>			

COMPOSITE SAMPLE DATA:				
Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

SAMPLE COLLECTION INFORMATION:			
Analysis	Container Requirements	Collected	Other

OBSERVATIONS / NOTES:	MAP:
<p><u>Same location as borehole</u></p> <p><u>BRO-102-25</u></p>	<p> </p>

Circle if Applicable: _____	Signature(s): <u>[Signature]</u>
MS/MSD _____	Duplicate ID No.: _____



## Page 1 of 1

Sample ID No.: 100-SS-03  
Sample Location: FFTA Site 100  
Sampled By: A. Franklin  
C.O.C. No.: \_\_\_\_\_

- ☒ Surface Soil  
☐ Subsurface Soil  
☐ Sediment  
☐ Other:  
☐ QA Sample Type:

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

Date: 9/8/99	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1510	0-6"	Brown	Sand
Method: SS Spoon			
Monitor Reading (ppm): 6			


Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

[illegible]**MAP:**

MS/MSD

**Duplicate ID No.:**

**Signature(s):**

Signature(s): 

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: NASP OLF Bronson  
Project No.: CTO 0086

Sample ID No.: 100-SS-01

Sample Location: Fire fighting Training Site 100

Sampled By: L. Frank

C.O.C. No.: \_\_\_\_\_

- ☒ Surface Soil  
☐ Subsurface Soil  
☐ Sediment  
☐ Other: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
9/8/99	0-6"	Brown	Sand
Time: 1440			
Method: <u>SSSpoon</u>			
Monitor Reading (ppm): <u>0</u>			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>TCL VOC</u>	<u>59 Enew X3</u>	<input checked="" type="checkbox"/>	
<u>TCL SVOC, Post. PCB, Metals, CW</u>	<u>16 oz</u>	<input checked="" type="checkbox"/>	

## OBSERVATIONS / NOTES:

## MAP:

Circle if Applicable:

MS/MSD ☒

Duplicate ID No.: \_\_\_\_\_

Signature(s):

*[Signature]*

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: WASP OLF Bronson  
Project No.: CTO 0086

Sample ID No.: 100-SS-02  
Sample Location: FFTH Site  
Sampled By: M. Lee Kim  
C.O.C. No.: \_\_\_\_\_

- ☒ Surface Soil  
☐ Subsurface Soil  
☐ Sediment  
☐ Other: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
9/8/88	0-6"	Brown	Sand
Time: 1455			
Method: SSSpoon			
Monitor Reading (ppm): #			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	59 Ethen X3	✓	
TCL SVOC, Pest, PCB, Metals, CN	16 OZ		

## OBSERVATIONS / NOTES:

## MAP:

## Circle if Applicable:

## Signature(s):

MS/MSD

Duplicate ID No.:

100 - SS - DD

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name:	<u>WASP OLF Brouse</u>	Sample ID No.:	<u>102-SS-04</u>
Project No.:	<u>CTO 0086</u>	Sample Location:	<u>MGB Site 102</u>
<input checked="" type="checkbox"/> Surface Soil		Sampled By:	<u>R. Franklin</u>
<input type="checkbox"/> Subsurface Soil		C.O.C. No.:	
<input type="checkbox"/> Sediment		Type of Sample:	
<input type="checkbox"/> Other:		<input checked="" type="checkbox"/> Low Concentration	
<input type="checkbox"/> QA Sample Type:		<input type="checkbox"/> High Concentration	

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
<u>9/9/99</u>	<u>0-6"</u>	<u>Lt. Brown</u>	<u>Sand</u>
Time: <u>1030</u>			
Method: <u>SS Spoon</u>			
Monitor Reading (ppm): <u>0</u>			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
<u>TCL VOC</u>	<u>59 Bencar</u>	<u>✓</u>	
<u>TCL SVOC, Pest, PCB</u>	<u>16 oz</u>	<u>✓</u>	
<u>TCL Metals, Cu</u>			

## OBSERVATIONS / NOTES:

## MAP:

<div style="border: 1px solid black; width: 100%; height: 100%;"></div>	<div style="border: 1px solid black; width: 100%; height: 100%;"></div>
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## Circle if Applicable:

## Signature(s):

MS/MSD	Duplicate ID No.:	
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# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: NASP OLP Bronson  
Project No.: CTO 0086

Sample ID No.: 102-SS-03  
Sample Location: M G B Spteloz  
Sampled By: K. Fuhl  
C.O.C. No.: \_\_\_\_\_

- ☒ Surface Soil  
☐ Subsurface Soil  
☐ Sediment  
☐ Other: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
9/19/99	0-6"	Lt. Brown	Sand
Time: 1015			
Method: <u>SS Spoon</u>			
Monitor Reading (ppm): <u>0</u>			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	59 Encaps 3	<input checked="" type="checkbox"/>	
TCL Pest, PCB, SVOC	1602	<input checked="" type="checkbox"/>	
TAL ym + tds, CW			

## OBSERVATIONS / NOTES:

## MAP:

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

*K. Fuhl*



# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: WASP OLF Brown  
Project No.: ETO 0086

Sample ID No.: 102-SS-05  
Sample Location: MGB Site 102  
Sampled By: A. F. L.  
C.O.C. No.: \_\_\_\_\_

- ☒ Surface Soil  
☐ Subsurface Soil  
☐ Sediment  
☐ Other: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
9/9/98	0-6"	Lt. Brown	Sand
Time: 1045			
Method: <u>SS Spoon</u>			
Monitor Reading (ppm): <u>Ø</u>			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	5 g Encon X3	✓	
TCL SVOC, Post, PCB	16 oz	✓	
TAL Metals, CW			

## OBSERVATIONS / NOTES:

## MAP:

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

A. F. L.

# SOIL & SEDIMENT SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: NHSP OLF Bronson  
Project No.: CT086

Sample ID No.: 1025402  
Sample Location: 1300-102-25  
Sampled By: J. P. van Klee  
C.O.C. No.: \_\_\_\_\_

- ☐ Surface Soil  
☒ Subsurface Soil  
☐ Sediment  
☐ Other: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

## GRAB SAMPLE DATA:

Date:	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
10/12/99	5-6'	lt. Brown	Fine Sand, Moist
Time: 1305			
Method: DPT			
Monitor Reading (ppm):			

## COMPOSITE SAMPLE DATA:

Date:	Time	Depth	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

## SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
TCL VOC	3 x 500 Enew	✓	
TCL SVOC, pest. PCB, THL metals	16 oz Ce	✓	

## OBSERVATIONS / NOTES:

## MAP:

Circle if Applicable:

Signature(s):

MS/MSD

Duplicate ID No.:

*J. P. van Klee*

## **APPENDIX C**

### **MONITORING WELL CONSTRUCTION DETAILS**

## OVERBURDEN MONITORING WELL SHEET

PROJECT <u>NA Spensicola, OLF Brown</u>	LOCATION: <u>ASOLF Brown</u>	DRILLER <u>TEG</u>
PROJECT NO. <u>CTO</u>	BORING <u>BRO-102-15</u>	METHOD: DPT
ELEVATION _____	DATE <u>10/12/89</u>	DRILLING _____
FIELD GEOLOGIST _____		DEVELOPMENT: NA

<p>GROUND <input checked="" type="checkbox"/> ELEVATION</p>	ELEVATION OF TOP OF SURFACE CASING: _____
	ELEVATION OF TOP OF RISER PIPE: _____
	STICK-UP TOP OF SURFACE CASING: _____
	STICK-UP RISER PIPE: _____
	I.D. OF SURFACE CASING: _____
	TYPE OF SURFACE CASING: _____
	TYPE OF SURFACE SEAL: <u>Concrete</u>
	RISER PIPE I.D.: <u>1"</u>
	TYPE OF RISER PIPE: <u>PVC 40</u>
	BOREHOLE DIAMETER: <u>3"</u>
	TYPE OF SEAL: <u>Bentonite</u>
	ELEVATION / DEPTH OF SEAL: <u>11.0</u>
	TYPE OS SEAL: <u>Fine Sand</u>
	DEPTH TOP OF SAND PACK: _____
ELEVATION / DEPTH TOP OF SCREEN: <u>11.6'</u>	
TYPE OF SCREEN: <u>40 PVC</u>	
SLOT SIZE X LENGTH: _____	
I.D. OF SCREEN: <u>1"</u>	
TYPE OF SAND PACK: <u>Medium</u>	
ELEVATION / DEPTH BOTTOM OF SCREEN: <u>11.6</u>	
ELEVATION / DEPTH BOTTOM OF SAND PACK: <u>11.6</u>	
TYPE OF BACKFILL BELOW OBSERVATION WELL: _____	
ELEVATION / DEPTH OF HOLE: <u>1</u>	

## OVERBURDEN MONITORING WELL SHEET

PROJECT <u>UASP</u>	LOCATION: <u>OLF Brownson</u>	DRILLER <u>TEC</u>
PROJECT NO. <u>C7086</u>	BORING <u>BRO-102-25</u>	METHOD: DPT
ELEVATION _____	DATE <u>10/12/99</u>	DRILLING _____
FIELD GEOLOGIST _____		DEVELOPMENT: NA

GROUND ☒ ELEVATION

ELEVATION OF TOP OF SURFACE CASING: \_\_\_\_\_

ELEVATION OF TOP OF RISER PIPE: \_\_\_\_\_

STICK-UP TOP OF SURFACE CASING: \_\_\_\_\_

STICK-UP RISER PIPE: \_\_\_\_\_

I.D. OF SURFACE CASING: \_\_\_\_\_

TYPE OF SURFACE CASING: \_\_\_\_\_

TYPE OF SURFACE SEAL: Concrete

RISER PIPE I.D.: 1"

TYPE OF RISER PIPE: PVC 40

BOREHOLE DIAMETER: 3"

TYPE OF SEAL: Bentonite

ELEVATION / DEPTH OF SEAL: 10.3'

TYPE OS SEAL: Fine Sand

DEPTH TOP OF SAND PACK: 0.4'

ELEVATION / DEPTH TOP OF SCREEN: 10.4'

TYPE OF SCREEN: PVC 40

SLOT SIZE X LENGTH: 0.01"

I.D. OF SCREEN: 1"

TYPE OF SAND PACK: Medium

ELEVATION / DEPTH BOTTOM OF SCREEN: 110.4'

ELEVATION / DEPTH BOTTOM OF SAND PACK: 1'

TYPE OF BACKFILL BELOW OBSERVATION WELL: \_\_\_\_\_

ELEVATION / DEPTH OF HOLE: 111'

## **APPENDIX D**

### **GROUNDWATER SAMPLING FIELD FORMS**



## GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1Project Site Name: NAS Pensacola OLF Bronson  
Project No.: CTO 0086Sample ID No.: 102-MW-003-0  
Sample Location: BRO 102-35  
Sampled By: Site 102  
C.O.C. No.: J. From KL

- ☐ Domestic Well Data  
☒ Monitoring Well Data  
☐ Other Well Type: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

Type of Sample:  
☒ Low Concentration  
☐ High Concentration

## SAMPLING DATA:

Date: <u>9/9/99</u>	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: <u>1215</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC								

## PURGE DATA:

Date: <u>9/9/99</u>	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	<u>1143</u>	<u>4.46</u>	<u>0.51</u>	<u>28.0</u>	<u>352</u>	<u>162</u>	<u>0</u>	
Monitor Reading (ppm):	<u>1148</u>	<u>4.67</u>	<u>0.038</u>	<u>28.2</u>	<u>191</u>	<u>1.66</u>	<u>0</u>	
Well Casing Diameter & Material	<u>1.51</u>	<u>4.93</u>	<u>0.039</u>	<u>28.2</u>	<u>158</u>	<u>1.54</u>	<u>0</u>	
Type: 2" PVC	SEE LOW FLOW PURGE DATA SHEET							
Total Well Depth (TD): <u>2-5'</u>	<u>1159</u>	<u>4.66</u>	<u>0.035</u>	<u>28.1</u>	<u>109</u>	<u>0.84</u>	<u>0</u>	
Static Water Level (WL): <u>6"</u>	<u>1205</u>	<u>4.67</u>	<u>0.036</u>	<u>28.2</u>	<u>72</u>	<u>0.84</u>	<u>0</u>	
One Casing Volume(gal/L):	<u>1213</u>	<u>4.64</u>	<u>0.035</u>	<u>28.2</u>	<u>51</u>	<u>0.84</u>	<u>0</u>	
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

## SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>TCL VOC</u>	<u>HCL</u>	<u>2 40 ml vials</u>	<u>✓</u>
<u>TCL SVOC</u>	<u>40C</u>	<u>2 1ltr amber</u>	<u>—</u>
<u>TCL Rest PCB</u>	<u>40C</u>	<u>2 1ltr amber</u>	<u>—</u>
<u>TAL Metals</u>	<u>H<sub>2</sub>NO<sub>3</sub></u>	<u>500 ml plastic</u>	<u>—</u>
<u>TAL Cu</u>	<u>H<sub>2</sub>SO<sub>4</sub></u>	<u>1 1tr plastic</u>	<u>—</u>

## OBSERVATIONS / NOTES:

Same location as surface soil  
102-SS-03

## Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):



## GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: NAS Pensacola OLF Brownson  
Project No.: CTO 0086

Sample ID No.: 102-MW-0040Sample Location: Site 102Sampled By: K. Franklin

C.O.C. No.: \_\_\_\_\_

Type of Sample: \_\_\_\_\_

☒ Low Concentration☐ High Concentration

- ☐ Domestic Well Data  
☒ Monitoring Well Data  
☐ Other Well Type: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

## SAMPLING DATA:

Date: <u>9/9/99</u>	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: <u>1315</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC								

## PURGE DATA:

Date: <u>9/9/99</u>	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	<u>1302</u>	<u>4.57</u>	<u>0.039</u>	<u>27.0</u>	<u>56</u>	<u>3.84</u>	<u>0</u>	
Monitor Reading (ppm):	<u>1307</u>	<u>4.56</u>	<u>0.040</u>	<u>27.0</u>	<u>30</u>	<u>3.24</u>	<u>0</u>	
Well Casing Diameter & Material	<u>1311</u>	<u>4.56</u>	<u>0.041</u>	<u>27.0</u>	<u>18</u>	<u>3.51</u>	<u>0</u>	
Type: 2" PVC	SEE LOW FLOW PURGE DATA SHEET							
Total Well Depth (TD): <u>2.5'</u>	<u>1315</u>	<u>4.51</u>	<u>0.041</u>	<u>27.1</u>	<u>12</u>	<u>3.68</u>	<u>0</u>	
Static Water Level (WL): <u>8"</u>								
One Casing Volume(gal/L):								
Start Purge (hrs):								
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

## SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>TCL VOC</u>		<u>2 40 vial</u>	
<u>TCL SVOC</u>		<u>2 1ltr. amber</u>	
<u>Pest/PCP</u>		<u>2 1ltr. amber</u>	
<u>TAL Metals</u>		<u>500ml 1ltr. plasti</u>	
<u>CW</u>		<u>1ltr. plastic</u>	

## OBSERVATIONS / NOTES:

Same location as 102-SS-05

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):



BKO-102-15-01m



## GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1Project Site Name: NAS Pensacola  
Project No.: 2500Sample ID No.: BRD-102-25-01Sample Location: BRDSampled By: JEC.O.C. No.: Type of Sample: 

- ☐ Domestic Well Data  
☒ Monitoring Well Data  
☐ Other Well Type:   
☐ QA Sample Type:

- ☐ Low Concentration  
☐ High Concentration

## SAMPLING DATA:

Date: <u>10-27-99</u>	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: <u>1620</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC	<u>brown</u>	<u>4.94</u>	<u>0.084</u>	<u>23.0</u>	<u>&gt;1000</u>	<u>0.20</u>	<u>—</u>	<u>—</u>

## PURGE DATA:

Date: <u>10-27-99</u>	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Water Level Salinity	Flow Rate Other
Method: PERISTALTIC	<u>1517</u>	<u>5.34</u>	<u>0.102</u>	<u>23.4</u>	<u>&gt;1000</u>	<u>1.88</u>	<u>6.61'</u>	<u>~500ml/min</u>
Monitor Reading (ppm): <u>—</u>	<u>1530</u>	<u>5.34</u>	<u>0.092</u>	<u>23.1</u>	<u>&gt;1000</u>	<u>0.20</u>	<u>6.70'</u>	<u>~200</u>
Well Casing Diameter & Material Type: <u>2" PVC 1" PIC</u>	SEE LOW FLOW PURGE DATA SHEET							
Total Well Depth (TD): <u>10.4'</u>	<u>1545</u>	<u>5.05</u>	<u>0.086</u>	<u>22.9</u>	<u>&gt;1000</u>	<u>0.21</u>	<u>6.69'</u>	<u>~200</u>
Static Water Level (WL): <u>6.61</u>	<u>1556</u>	<u>4.90</u>	<u>0.085</u>	<u>22.9</u>	<u>&gt;1000</u>	<u>0.19</u>	<u>6.69'</u>	<u>~100</u>
One Casing Volume (gal/L): <u>0.15</u>	<u>1603</u>	<u>4.94</u>	<u>0.084</u>	<u>23.0</u>	<u>&gt;1000</u>	<u>0.20</u>	<u>6.69'</u>	<u>~100</u>
Start Purge (hrs): <u>1517</u>								
End Purge (hrs): <u>1603</u>								
Total Purge Time (min): <u>46 min</u>								
Total Vol. Purged (gal/L): <u>2.1 gal</u>								

## SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>Volatiles</u>	<u>HCl</u>	<u>(2) 40 mL vials</u>	<u>yes</u>
<u>SVOC</u>	<u>—</u>	<u>(2) 1 L Amber</u>	<u>↓</u>
<u>Pest/PCBs</u>	<u>—</u>	<u>(2) 1 L Amber</u>	<u>↓</u>
<u>Cyanide</u>	<u>NaOH</u>	<u>(2) 500 mL Plastic</u>	<u>↓</u>
<u>Metals</u>	<u>HNO<sub>3</sub></u>	<u>(1) 1 L Plastic</u>	<u>↓</u>

## OBSERVATIONS / NOTES:

Note: During well development, 25 gals were pumped out of the well & the turbidity never went below 999 (the max reading of the Horiaba U-10)

Circle if Applicable:

MS/MSD

Duplicate ID No.: 

Signature(s):



## GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1Project Site Name: NAS Pensacola OLF Benson  
Project No.: CTO 4486Sample ID No.: 100-MW-001-01Sample Location: Site 100Sampled By: M. P. Smith

C.O.C. No.: \_\_\_\_\_

Type of Sample: \_\_\_\_\_

- ☐ Domestic Well Data  
☒ Monitoring Well Data  
☐ Other Well Type: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

- ☒ Low Concentration  
☐ High Concentration

## SAMPLING DATA:

Date: <u>9/10/99</u>	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: <u>1245</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC								

## PURGE DATA:

Date: <u>9/10/99</u>	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	<u>1209</u>	<u>5.42</u>	<u>0.070</u>	<u>28.4</u>	<u>288</u>	<u>2.69</u>	<u>0</u>	
Monitor Reading (ppm): <u>0</u>	<u>1214</u>	<u>5.20</u>	<u>0.060</u>	<u>28.2</u>	<u>69</u>	<u>2.09</u>	<u>0</u>	
Well Casing Diameter & Material	<u>1224</u>	<u>5.06</u>	<u>0.057</u>	<u>28.2</u>	<u>25</u>	<u>1.97</u>	<u>0</u>	
Type: <u>2" PVC 1 1/4" PVC</u>	<del>1230</del>	SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): <u>4.5'</u>	<u>1230</u>	<u>5.03</u>	<u>0.057</u>	<u>28.2</u>	<u>18</u>	<u>1.63</u>	<u>0</u>	
Static Water Level (WL): <u>1.46'</u>	<u>1236</u>	<u>5.06</u>	<u>0.056</u>	<u>28.1</u>	<u>14</u>	<u>2.20</u>	<u>0</u>	
One Casing Volume (gal/L): <u>0.20</u>	<u>1240</u>	<u>5.07</u>	<u>0.056</u>	<u>28.1</u>	<u>11</u>	<u>2.19</u>	<u>0</u>	
Start Purge (hrs): <u>1:57</u>	<u>1245</u>	<u>5.03</u>	<u>0.055</u>	<u>28.1</u>	<u>10</u>	<u>2.61</u>	<u>0</u>	
End Purge (hrs):								
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

## SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>TCL VOC</u>	<u>Hel</u>	<u>2 x 40 ml vinyl</u>	<input checked="" type="checkbox"/>
<u>TCL SVOC</u>	<u>4°C</u>	<u>2 x 1 ltr. amber</u>	<input checked="" type="checkbox"/>
<u>PAHs/PCB</u>	<u>4°C</u>	<u>1 " "</u>	<input checked="" type="checkbox"/>
<u>TAL Metals</u>	<u>HNO<sub>3</sub></u>	<u>500 ml plastic</u>	<input checked="" type="checkbox"/>
<u>CW</u>	<u>NaOH</u>	<u>1 ltr. plastic</u>	<input checked="" type="checkbox"/>

## OBSERVATIONS / NOTES:

well BFO-100-015

Circle if Applicable:

MS/MSD

Duplicate ID No.:

100-MW-DD-01

Signature(s):



## GROUNDWATER SAMPLE LOG SHEET

Page 1 of 1

Project Site Name: NAS Pensacola OLF Bionsea  
Project No.: CTO 4486

Sample ID No.: 100-MW-002-01Sample Location: Site 100Sampled By: R. F. Funch

C.O.C. No.: \_\_\_\_\_

Type of Sample: \_\_\_\_\_

- ☐ Domestic Well Data  
☒ Monitoring Well Data  
☐ Other Well Type: \_\_\_\_\_  
☐ QA Sample Type: \_\_\_\_\_

- ☒ Low Concentration  
☐ High Concentration

## SAMPLING DATA:

Date: <u>09/10/99</u>	Color	pH	S.C.	Temp.	Turbidity	DO	Salinity	Other
Time: <u>1420</u>	Visual	Standard	mS/cm	Degrees C	NTU	mg/l	%	NA
Method: PERISTALTIC	<u>clear</u>						<u>0</u>	

## PURGE DATA:

Date: <u>9/10/99</u>	Time	pH	S.C.	Temp. (C)	Turbidity	DO	Salinity	Other
Method: PERISTALTIC	<u>1334</u>	<u>5.50</u>	<u>.061</u>	<u>28.6</u>	<u>445</u>	<u>0.96</u>	<u>0</u>	
Monitor Reading (ppm):	<u>1340</u>	<u>5.38</u>	<u>.060</u>	<u>28.7</u>	<u>101</u>	<u>0.89</u>	<u>0</u>	
Well Casing Diameter & Material	<u>1345</u>	<u>5.32</u>	<u>.057</u>	<u>28.6</u>	<u>80</u>	<u>1.24</u>	<u>0</u>	
Type: <u>2" PVC 1 1/4" PVC</u>	<u>1345</u>	SEE LOW FLOW PURGE DATA SHEET						
Total Well Depth (TD): <u>4.5'</u>	<u>1350</u>	<u>5.30</u>	<u>.055</u>	<u>28.6</u>	<u>63</u>	<u>1.33</u>	<u>0</u>	
Static Water Level (WL): <u>0.8'</u>	<u>1355</u>	<u>5.36</u>	<u>.054</u>	<u>28.6</u>	<u>37</u>	<u>1.35</u>	<u>0</u>	
One Casing Volume (gal/L): <u>0.236</u>	<u>1400</u>	<u>5.21</u>	<u>.054</u>	<u>28.7</u>	<u>25</u>	<u>1.93</u>	<u>0</u>	
Start Purge (hrs): <u>13.5</u>	<u>1405</u>	<u>5.34</u>	<u>.053</u>	<u>28.7</u>	<u>19</u>	<u>2.07</u>	<u>0</u>	
End Purge (hrs):	<u>1413</u>	<u>5.17</u>	<u>.052</u>	<u>29.1</u>	<u>24</u>	<u>2.30</u>	<u>0</u>	
Total Purge Time (min):								
Total Vol. Purged (gal/L):								

## SAMPLE COLLECTION INFORMATION:

Analysis	Preservative	Container Requirements	Collected
<u>TCL VOC</u>	<u>HCL</u>	<u>2 x 40 ml vial</u>	<u>X</u>
<u>TCL SVOC</u>	<u>40C</u>	<u>2 x 1 liter amber</u>	<u>X</u>
<u>Pest / PCB</u>	<u>40C</u>	<u>1"</u>	<u>X</u>
<u>TAL Metals</u>	<u>HNO3</u>	<u>500 ml plastic</u>	<u>X</u>
<u>CW</u>	<u>KOH</u>	<u>1 liter plastic</u>	<u>X</u>

## OBSERVATIONS / NOTES:

MW BRO-100-02S

Circle if Applicable:

MS/MSD

Duplicate ID No.: \_\_\_\_\_

Signature(s):

Signature: [Signature]

e(s):

## Page 1 of 1

Responsible Personnel: Jeff Alexander  
Drilling Co.: teg  
Project Name: OLF Branson  
Project Number: \_\_\_\_\_

[illegible]

## MONITORING WELL DEVELOPMENT RECORD

Page 4 of 7

Well: BRO - 102 - 25  
 Site: \_\_\_\_\_  
 Date Installed: 10.12.99  
 Date Developed: 10.16.99  
 Dev. Method: \_\_\_\_\_  
 Pump Type: peristaltic

Depth to Bottom (ft.): 10.40  
 Static Water Level Before (ft.): 6.90  
 Static Water Level After (ft.): \_\_\_\_\_  
 Screen Length (ft.): 10'  
 Specific Capacity: \_\_\_\_\_  
 Casing ID (in.): 1"

Responsible Personnel: Jeff Alexander  
Drilling Co.: teg  
Project Name: OLF Bronson  
Project Number: \_\_\_\_\_

[illegible]



**APPENDIX E**

**SOIL AND GROUNDWATER LABORATORY ANALYTICAL DATA SHEETS**

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

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October 8, 1999

Ms. Lee Leck  
Tetra Tech NUS  
Foster Plaza VII  
661 Andersen Dr.  
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 02SS02. The 9 aqueous and 11 soil samples were taken from the field on September 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup>, 1999 and received at Ceimic Corporation on September 9<sup>th</sup> and 11<sup>th</sup>, 1999.

These samples are reported under Ceimic Project Number 990799 which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,



Neil Pothier, Ph.D  
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen  
Tetra Tech NUS  
1311 Executive Center Dr.  
Ellis Bldg.  
Suite 220  
Tallahassee, FL 32301

Mr. Arnold Lamb  
Tetra Tech NUS  
794 S. Military Trail  
Deerfield Beach, FL 33442

CHAIN OF CUSTODY

(3)

# Chain of Custody

Original Chain of Custody to Laboratory

990799

0900

Page 1

Project #		Project Name		Cooler Temp.		Analyses														Remarks
CTO 00586		WASP OLF Branson		4°C																
Samplers (please print)				Cooler #																
Lab ID	Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	TCL VOC	pH	TCL SVOC	pH	TCL Pesticides	pH	THL Metals	pH	Cyanide	pH	pH	pH	pH	
01	9/8	1155	G	1φ2-SS-φ2	S	4	X		X		X		X		X					
02	9/8	1020	G	102-SS-φ1	S	4	X		X		X		X		X					
03	9/8	1120	G	102-SS-φ1	S	4	X		X		X		X		X					
04	9/8	1455	G	100-SS-φ2	S	4	X		X		X		X		X					
05	9/8	1440	G	100-SS-φ1	S	4	X		X		X		X		X				ms/msp	
06	9/8	-	G	100-SS-DD	S	4	X		X		X		X		X				Dup.	
07	9/8	1510	G	100-SS-φ3	S	4	X		X		X		X		X					
08	9/8	1520	G	100-SS-φ4	S	4	X		X		X		X		X					
09	9/8	1800	G	TB090899-1	W	2	X												Trip Blank	
Ceimic Project #				Relinquished by (signature)		Date/Time		Received by (signature)				Date/Time								
990799				[Signature]		9/8/99/1700		F. Ex												
Storage Location				Relinquished by (signature)		Date/Time		Received by (signature)				Date/Time								
#3				[Signature]				Amy St. John				9.9.99 11:00								
Remarks:																				

= Lab Use Only

Ceimic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

15

# Chain of Custody

Original Chain of Custody goes to Laboratory

170177

Page 1 of 1

Project #		Project Name		Cooler Temp.		Analyses												Remarks									
samplers (please print)		Cooler #		Lab ID	Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	TEL VOC	pH	TEL SVOC	pH	TEL PCB/PAH	pH	THAL Metals		pH	Cyanide	pH	pH	pH	pH			
10	9/9	1315	G	102-MW-004-01	W	8	X				X				X		X										
11	9/9	1215	G	102-MW-003-01	W	8	X				X				X		X										
12	9/9	1045	G	102-SS-05	S	4	X				X				X		X										
13	9/9	1015	G	102-SS-03	S	4	X				X				X		X										
14	9/9	1030	G	102-SS-04	S	4	X				X				X		X										
15	9/9	1100	W	TB 4444-01	W	2	X																				
Celmic Project #				Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time											
990799				[Signature]				9/9/99/1900				[Signature]															
Storage Location				Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time											
#15				Relinquished by (signature)				Date/Time				Received by Celmic (signature)				Date/Time											
												Amy H. John				9-10-99 11:00											
Remarks:																											

☐ = Lab Use Only

Celmic Corporation, 10 Dean Knauss Drive, Narragansett, RI 02882 - Tel: (401) 782-8900, Fax: (401) 782-8905

(12)

Chain of Custody  
Original Chain of Custody - to Laboratory

11/11/11

Project #		Project Name		Cooler Temp.		Analyses												Remarks	
CTO 0486		NHS Pensacola OLF Bynson		4°C															
Samplers (please print)				Cooler #															
M. Tuhl Betty R. Bobo				1-3															
Lab ID	Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers	TCL VOC	pH	TCL SVOC	pH	Pest/Herb	pH	THAL Metals	pH	Cyanide	pH	pH	pH	pH
16	9/10	1245	G	100-mw-001-01	W	8	X		X		Y		X		X				
17	9/10	1420	G	100-mw-002-01	W	8	X		Y		Y		X		X				
18	9/10	1130	G	100-mw-003-01	W	8	X		Y		Y		Y		X				
19	9/10	-	G	100-mw-DD-01	W	8	X		X		X		X		X				Dup
20	9/10	0920	G	100-mw-004-01	W	8	X		X		X		X		X				
	9/10	1210	G	10 FB 091099-01	W	8	X		X		X		Y		X				Field Blank
	9/10	1435	G	ER 091099-01	W	8	X		Y		Y		Y		Y				Eggs/Kins
	9/10	0900	G	TR 091099-01	W	2	X												TR Blank
Ceimic Project #				Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time			
990799				M. Tuhl				9/10/99 1800				Fed Ex							
Storage Location				Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time			
# 12																			
Remarks:				Relinquished by (signature)				Date/Time				Received by Ceimic (signature)				Date/Time			
												Amy St. John				9/10/99 11:00			

CEMTEC CORPORATION  
Sample Receiving Checklist

LIMS # 990799  
Client: Tetra Tech NUS  
Project: NASPOLFBenson

Cooler Number: 1  
Number of Coolers: 1  
Date Received: 9.9.99

- A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9.9.99
1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9.9.99
2. Did cooler come with a shipping slip (airbill, etc.)? YES NO  
If YES, enter carrier name & airbill number here: FedEx  
810789127430
3. Were custody seals on outside of cooler? YES NO  
How many & where: NA seal date: / / seal name:
4. Were custody seals unbroken and intact at the date and time of arrival NA YES NO
5. Did you screen samples for radioactivity using a Geiger Counter? Reading: ND YES NO
6. Chain of Custody #: 0460
7. Were custody papers sealed in a plastic bag & taped inside to the lid? YES NO
8. Were custody papers filled out properly (ink, signed, etc.)? YES NO
9. Did you sign custody papers in the appropriate place? YES NO
10. Was project identifiable from custody papers? YES NO
11. If required, was enough ice used? Cooler Temperature: 4 °C Type of ice: cube YES NO
- B. LOG-IN PHASE: Date samples were logged-in: 9.9.99  
by (print): Amy St. John (sign): Amy St John
12. Describe type of packing in cooler:
13. Were all bottles sealed in separate plastic bags? YES NO
14. Did all bottles arrive unbroken and were labels in good condition? YES NO
15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? YES NO
16. Did all bottle labels agree with custody papers? YES NO
17. Were correct containers used for the tests indicated? YES NO
18. Were samples received at the correct pH? YES NO
19. Was a sufficient amount of sample sent for tests indicated? YES NO
20. Were bubbles absent in VOA samples? If NO, list by sample#:  YES NO
21. Laboratory labelling verified by: (Initials):  (date): / /

CEMTEC CORPORATION  
Sample Receiving Checklist

LIMS # 990799  
Client: Tetra Tech NUS  
Project: CTO 0086

Cooler Number: 1  
Number of Coolers: 1  
Date Received: 9/10/99

- A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/10/99
1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9/10/99
2. Did cooler come with a shipping slip (airbill, etc.)? ☒ YES ☐ NO  
If YES, enter carrier name & airbill number here: FedEx  
810789127440
3. Were custody seals on outside of cooler? ☒ YES ☐ NO  
How many & where: 1, front seal date: 9/9/99 seal name: \_\_\_\_\_
4. Were custody seals unbroken and intact at the date and time of arrival ☒ YES ☐ NO
5. Did you screen samples for radioactivity using a Geiger Counter? \_\_\_\_\_ Reading: ND ☒ YES ☐ NO
6. Chain of Custody #: 0461
7. Were custody papers sealed in a plastic bag & taped inside to the lid? ☒ YES ☐ NO
8. Were custody papers filled out properly (ink, signed, etc.)? ☒ YES ☐ NO
9. Did you sign custody papers in the appropriate place? ☒ YES ☐ NO
10. Was project identifiable from custody papers? ☒ YES ☐ NO
11. If required, was enough ice used? \_\_\_\_\_ Cooler Temperature: 4 °C Type of ice: cube ☒ YES ☐ NO
- B. LOG-IN PHASE: Date samples were logged-in: 9/10/99  
by (print): Amy St. John (sign): Amy St. John
12. Describe type of packing in cooler: \_\_\_\_\_
13. Were all bottles sealed in separate plastic bags? ☒ YES ☐ NO
14. Did all bottles arrive unbroken and were labels in good condition? ☒ YES ☐ NO
15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ☒ YES ☐ NO
16. Did all bottle labels agree with custody papers? See corrective Action ☒ YES ☐ NO
17. Were correct containers used for the tests indicated? ☒ YES ☐ NO
18. Were samples received at the correct pH? ☒ YES ☐ NO
19. Was a sufficient amount of sample sent for tests indicated? ☒ YES ☐ NO
20. Were bubbles absent in VOA samples? If NO, list by sample#: \_\_\_\_\_ YES NO
21. Laboratory labelling verified by: (Initials): \_\_\_\_\_ (date): / /



CEMIC CORPORATION  
Sample Receiving Checklist

LIMS # 90799

Client: Tetra Tech

Project: NAS Pensacola

Cooler Number: 1-3

Number of Coolers: 3

Date Received: 9/11/99

- A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/11/99
1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9/11/99
2. Did cooler come with a shipping slip (airbill, etc.)? YES NO  
If YES, enter carrier name & airbill number here: Fedex  
810789127451
3. Were custody seals on outside of cooler? YES NO  
How many & where: 1, front seal date: 9/10/99 seal name: Enco
4. Were custody seals unbroken and intact at the date and time of arrival YES NO
5. Did you screen samples for radioactivity using a Geiger Counter? NO YES NO Reading: ND
6. Chain of Custody #: 0464
7. Were custody papers sealed in a plastic bag & taped inside to the lid? YES NO
8. Were custody papers filled out properly (ink, signed, etc.)? YES NO
9. Did you sign custody papers in the appropriate place? YES NO
10. Was project identifiable from custody papers? YES NO
11. If required, was enough ice used? YES NO Cooler Temperature: 4°C Type of ice: blue

B. LOG-IN PHASE: Date samples were logged-in: 9/13/99  
by (print): Amy St. John (sign): Amy St. John

12. Describe type of packing in cooler: \_\_\_\_\_
13. Were all bottles sealed in separate plastic bags? YES NO
14. Did all bottles arrive unbroken and were labels in good condition? YES NO
15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? YES NO
16. Did all bottle labels agree with custody papers? YES NO
17. Were correct containers used for the tests indicated? YES NO
18. Were samples received at the correct pH? YES NO
19. Was a sufficient amount of sample sent for tests indicated? YES NO
20. Were bubbles absent in VOA samples? If NO, list by sample#: 1 YES NO
21. Laboratory labelling verified by: (Initials): \_\_\_\_\_ (date): / /

CEIMIC  
Corporation  
"Analytical Chemistry for Environmental Management"

## Corrective Action Form

Name: Amy St. John

Date: 9.10.99

Out of Control Situation: Label on sample didn't agree with custody paper  
(describe what happened, when, where and how, and who discovered the problem)

Triplicate samples packaged together contained one sample with a slightly different sample I.D. This sample was labeled with an X to identify it.

Client(s): Tetra tech

Samples Affected: client ID: 102-53-103

(reference both Ceimic and client IDs) Ceimic ID: 990799-13

Action Taken:

(if client contacted, reference client contact name and date)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Proof of Return to Control:

Supervisor: \_\_\_\_\_

QA/QC Officer: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Corrective Action Tracking # \_\_\_\_\_

QAT0237

Page # \_\_\_\_\_

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

## Corrective Action Form

Name: Amy St. John

Date: 9.13.99

Out of Control Situation: mislabeled samples

(describe what happened, when, where and how, and who discovered the problem)

According to the chain, there should have been 8 containers of sample ID# 100-mw-002-01 and 8 containers of sample ID# 100-mw-003-01. The coder contained 16 containers of sample ID# 100-mw-003-01 and no containers with the 100-mw-002-01 ID. A difference between these samples was the time sampled and they were separated according to that, i.e.; samples labeled 100-mw-003-01 with a sample time of 14:20 were given the Ceimic ID# 100-mw-002-01.

Client(s): Tetra Tech

Samples Affected:

(reference both Ceimic and client IDs)

for sample # 100-mw-002-01

Ceimic IDs: 100mw-002-01 & 100mw-003-01 Ceimic: 990799-17 & 990799-18

Action Taken:

(if client contacted, reference client contact name and date)

Called + Faxed Terry Hansen + Lee Leck

Name: Harry Leibovitz

Date: 9-14-99

Proof of Return to Control:

Supervisor: \_\_\_\_\_

Date: \_\_\_\_\_

QA/QC Officer: \_\_\_\_\_

Date: \_\_\_\_\_

Corrective Action Tracking # \_\_\_\_\_

QAT0237

Page # \_\_\_\_\_

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

## Corrective Action Form

Name: Amy St. John

Date: 9.13.99

Out of Control Situation: Sample ID missing last two numbers.  
(describe what happened, when, where and how, and who discovered the problem)

A container marked for TAL metals analysis was labeled with ID# 100-mw-001-. This sample most closely matches sample ID# 100-mw-001-01 on the chain and was assigned the ceimic ID# that was given to that sample.

Client(s): Tetra Tech

Samples Affected:

ceimic ID: 990799-16

(reference both Ceimic and client IDs)

client ID: 100-mw-001-01

Action Taken:

(if client contacted, reference client contact name and date)

Called + faxed Terry Hansen + center

Name: Harry Liebowitz

Date: 9-14-99

Proof of Return to Control:

Supervisor: \_\_\_\_\_

QA/QC Officer: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Corrective Action Tracking # \_\_\_\_\_

QAT0237

Page # \_\_\_\_\_

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

850-656-5458  
385-9899  
Terry Hansen  
Telhass ee

Fax Cover Sheet

To: Tetra Tech NUS

~~Lee Leck~~ Terry Hansen

Fax #: ~~412-721-4040~~ / (850) 385-9860

From: Henry Leibowitz

Date: 9-13-99

Re: CTO 0086 NAS Pensacola

# of Pages: 1  
(includes cover sheet)

- 1) Sample container labelled ID# 100-MW-001- should be ID# 100-MW-001-01 according to COC. Ceimic will assign ID according to COC.
- 2) Ceimic received 16 samples, labelled ID# 100-MW-003-01 and none labelled ID# 100-MW-002-01. The chain of custody indicated there should be eight containers for each ID. Ceimic assigned 100-MW-002-01 ID's according to the sample collection time which was specific to each sample. Time 1420 = 100-MW-002-01  
1130 = 100-MW-003-01

# Telephone Log

Client: Tetra Tech NUS  
Telephone: 770 413 0865 FAX X6733  
Contact: Roger Franklin  
Project: CTO.. 86  
Date & Time: 2:15pm 9-14-99  
Ceimic's Contact: Henry

---

## Summary:

- 1) ID's corrected properly by  
Ceimic 990799.
- 2) Next sampling in October (later)
- 3) Contact in field during  
sampling is Ron Jayner  
(850) 452 4611 X122

## **VOLATILE ANALYSES**

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V120922-B1


Date Sample Analyzed: 09/22/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
1,1-Dichloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V120922-B1

Date Sample Analyzed: 09/22/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
- Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	113	52 - 149
Dibromofluoromethane	106	65 - 135
Toluene-d8	69	65 - 135
Bromofluorobenzene	76	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150919-B1

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Methyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150919-B1

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
- Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	76	62 - 139
Dibromofluoromethane	78	75 - 125
Toluene-d8	85	75 - 125
Bromofluorobenzene	87	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150922-B1

Date Sample Analyzed: 09/22/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
1,1-Dichloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank ID: V150922-B1

Date Sample Analyzed: 09/22/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	99	75 - 125
Bromofluorobenzene	108	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-01

Date Sample Analyzed: 09/22/99

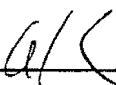
Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Methyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	13	7
Acetone	190	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-01

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
Chlorobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	76	65 - 135
Bromofluorobenzene	82	65 - 135

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 87

Laboratory ID: 990799-02

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	12	7
Acetone	120	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 87

Laboratory ID: 990799-02

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
Chlorobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	75	65 - 135
Bromofluorobenzene	80	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SU-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-03

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Ethyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	11	5
Acetone	54	11
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	11
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	11
4-Methyl-2-Pentanone	ND	11

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SU-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-03

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	5
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	85	65 - 135
Toluene-d8	74	65 - 135
Bromofluorobenzene	81	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 83

Laboratory ID: 990799-04

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
yl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	12	6
Acetone	110	12
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	12
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	12
4-Methyl-2-Pentanone	ND	12

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-02

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 83

Laboratory ID: 990799-04

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	93	65 - 135
Toluene-d8	79	65 - 135
Bromofluorobenzene	86	65 - 135

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Methyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	11	6
Acetone	130	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	17	13
4-Methyl-2-Pentanone	ND	13

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Laboratory ID: 990799-05

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	84	52 - 149
Dibromofluoromethane	87	65 - 135
Toluene-d8	80	65 - 135
Bromofluorobenzene	96	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-01

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 88

Matrix Spike ID: 990799-05

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
1,1-Dichloroethene	151	166	9	20	60 - 128
Trichloroethene	135	141	4	20	57 - 145
Benzene	148	162	9	20	72 - 124
Toluene	141	149	6	20	71 - 135
Chlorobenzene	136	149	9	20	72 - 135


+ Dry weight basis.

\* These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	89	52 - 149
Dibromofluoromethane	94	94	65 - 135
Toluene-d8	74	79	65 - 135
Bromofluorobenzene	78	91	65 - 135

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 84

Laboratory ID: 990799-06

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	13	6
Acetone	79	12
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	12
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	12
4-Methyl-2-Pentanone	ND	12

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-22-DD

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 84

Laboratory ID: 990799-06

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Chloroethene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	92	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	78	65 - 135
Bromofluorobenzene	89	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-03

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 94

Laboratory ID: 990799-07

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	8
Bromomethane	ND	8
Vinyl Chloride	ND	8
Chloroethane	ND	8
Methylene Chloride	18	8
Acetone	520	16
Carbon Disulfide	ND	8
1,1-Dichloroethene	ND	8
1,1-Dichloroethane	ND	8
1,2-Dichloroethene (total)	ND	8
Chloroform	ND	8
1,2-Dichloroethane	ND	8
2-Butanone	ND	16
1,1,1-Trichloroethane	ND	8
Carbon Tetrachloride	ND	8
Bromodichloromethane	ND	8
1,2-Dichloropropane	ND	8
trans-1,3-Dichloropropene	ND	8
Trichloroethene	ND	8
Dibromochloromethane	ND	8
1,1,2-Trichloroethane	ND	8
Benzene	ND	8
cis-1,3-Dichloropropene	ND	8
Bromoform	ND	8
2-Hexanone	ND	16
4-Methyl-2-Pentanone	ND	16

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-03

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 94

Laboratory ID: 990799-07

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1


Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	8
1,1,2,2-Tetrachloroethane	ND	8
ene	ND	8
Chlorobenzene	ND	8
Ethylbenzene	ND	8
Styrene	ND	8
Total Xylenes	ND	8

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	94	65 - 135
Toluene-d8	83	65 - 135
Bromofluorobenzene	92	65 - 135

Reported by: 

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 86

Laboratory ID: 990799-08

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	11	6
Acetone	110	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	ND	13
4-Methyl-2-Pentanone	ND	13

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-SS-04

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Soil

Percent Solids: 86

Laboratory ID: 990799-08

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Benzene	ND	6
Chlorobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	76	65 - 135
Bromofluorobenzene	81	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB090899-1

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-09

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	2	1
Acetone	23	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	6	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB090899-1

Date Sampled: 09/08/99

Date Sample Received: 09/09/99

Matrix: Aqueous

Laboratory ID: 990799-09

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	85	62 - 139
Dibromofluoromethane	90	75 - 125
Toluene-d8	95	75 - 125
Bromofluorobenzene	96	75 - 125

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-10

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-MW-004-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-10

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
ene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	62 - 139
Dibromofluoromethane	90	75 - 125
Toluene-d8	99	75 - 125
Bromofluorobenzene	97	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: I02-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	6	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-MW-003-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-11

Date Sample Analyzed: 09/19/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

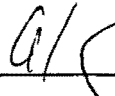
Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	90	62 - 139
Dibromofluoromethane	91	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	104	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-12

Date Sample Analyzed: 09/22/99

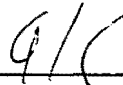
Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	6
Bromomethane	ND	6
Vinyl Chloride	ND	6
Chloroethane	ND	6
Methylene Chloride	9	6
Acetone	150	13
Carbon Disulfide	ND	6
1,1-Dichloroethene	ND	6
1,1-Dichloroethane	ND	6
1,2-Dichloroethene (total)	ND	6
Chloroform	ND	6
1,2-Dichloroethane	ND	6
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	6
Carbon Tetrachloride	ND	6
Bromodichloromethane	ND	6
1,2-Dichloropropane	ND	6
trans-1,3-Dichloropropene	ND	6
Trichloroethene	ND	6
Dibromochloromethane	ND	6
1,1,2-Trichloroethane	ND	6
Benzene	ND	6
cis-1,3-Dichloropropene	ND	6
Bromoform	ND	6
2-Hexanone	24	13
4-Methyl-2-Pentanone	15	13

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-05

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 93

Laboratory ID: 990799-12

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	6
1,1,2,2-Tetrachloroethane	ND	6
Toluene	ND	6
Bromobenzene	ND	6
Ethylbenzene	ND	6
Styrene	ND	6
Total Xylenes	ND	6

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	92	52 - 149
Dibromofluoromethane	91	65 - 135
Toluene-d8	77	65 - 135
Bromofluorobenzene	88	65 - 135

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 79

Laboratory ID: 990799-13

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	9	7
Acetone	99	14
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	14
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	14
4-Methyl-2-Pentanone	ND	14

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-03

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 79

Laboratory ID: 990799-13

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Toluene	ND	7
Bromobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	89	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	79	65 - 135
Bromofluorobenzene	92	65 - 135

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-04

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 92

Laboratory ID: 990799-14

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	7
Bromomethane	ND	7
Vinyl Chloride	ND	7
Chloroethane	ND	7
Methylene Chloride	9	7
Acetone	72	13
Carbon Disulfide	ND	7
1,1-Dichloroethene	ND	7
1,1-Dichloroethane	ND	7
1,2-Dichloroethene (total)	ND	7
Chloroform	ND	7
1,2-Dichloroethane	ND	7
2-Butanone	ND	13
1,1,1-Trichloroethane	ND	7
Carbon Tetrachloride	ND	7
Bromodichloromethane	ND	7
1,2-Dichloropropane	ND	7
trans-1,3-Dichloropropene	ND	7
Trichloroethene	ND	7
Dibromochloromethane	ND	7
1,1,2-Trichloroethane	ND	7
Benzene	ND	7
cis-1,3-Dichloropropene	ND	7
Bromoform	ND	7
2-Hexanone	ND	13
4-Methyl-2-Pentanone	ND	13

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102-SS-04

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Soil

Percent Solids: 92

Laboratory ID: 990799-14

Date Sample Analyzed: 09/22/99

Associated Method Blank: V120922-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	7
1,1,2,2-Tetrachloroethane	ND	7
Chloroethene	ND	7
Chlorobenzene	ND	7
Ethylbenzene	ND	7
Styrene	ND	7
Total Xylenes	ND	7

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	88	52 - 149
Dibromofluoromethane	92	65 - 135
Toluene-d8	75	65 - 135
Bromofluorobenzene	85	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB090999-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-15

Date Sample Analyzed: 09/20/99

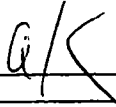
Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	2	1
Acetone	39	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	15	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB090999-01

Date Sampled: 09/09/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-15

Date Sample Analyzed: 09/20/99

Associated Method Blank: V150919-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	1	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	101	62 - 139
Dibromofluoromethane	104	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	108	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-16

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
- Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-001-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-16

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	106	62 - 139
Dibromofluoromethane	101	75 - 125
Toluene-d8	106	75 - 125
Bromofluorobenzene	108	75 - 125

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-002-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-17

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	111	75 - 125

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-18

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-003-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-18

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Bromobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-DD-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-19

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-DD-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-19

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
ene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	98	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-20

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 100-MW-004-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990799-20

Date Sample Analyzed: 09/22/99

Associated Method Blank: V150922-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chlorobenzene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	98	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	111	75 - 125

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: V120922-LCS

Date Sample Analyzed: 09/22/99

Matrix: Soil

Associated Method Blank: V120922-B1

Concentration: ug/Kg (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	43	86	60 - 128
Trichloroethene	50	41	82	57 - 145
Benzene	50	43	87	72 - 124
Toluene	50	43	86	71 - 135
Chlorobenzene	50	44	87	72 - 135

\* These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	82	52 - 149
Dibromofluoromethane	94	65 - 135
Toluene-d8	88	65 - 135
Bromofluorobenzene	91	65 - 135

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990799

Blank Spike ID: V150919-LCS

Date Sample Analyzed: 09/19/99

Matrix: Aqueous

Associated Method Blank: V150919-B1

Concentration:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	93	68 - 124
Trichloroethene	5	5	104	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	100	71 - 132
Chlorobenzene	5	5	104	77 - 128

These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	96	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	99	75 - 125

Reported by: 

Approved by: 



## **SEMIVOLATILE ORGANIC ANALYSES**

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-06

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY713

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 16 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	940	U
111-44-4-----	bis(2-Chloroethyl) Ether	940	U
95-57-8-----	2-Chlorophenol	940	U
541-73-1-----	1,3-Dichlorobenzene	940	U
106-46-7-----	1,4-Dichlorobenzene	940	U
100-51-6-----	Benzyl Alcohol	940	U
95-50-1-----	1,2-Dichlorobenzene	940	U
95-48-7-----	2-Methylphenol	940	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	940	U
106-44-5-----	4-Methylphenol	940	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	940	U
67-72-1-----	Hexachloroethane	940	U
98-95-3-----	Nitrobenzene	940	U
78-59-1-----	Isophorone	940	U
88-75-5-----	2-Nitrophenol	940	U
105-67-9-----	2,4-Dimethylphenol	940	U
65-85-0-----	Benzoic Acid	1900	U
111-91-1-----	bis(2-Chloroethoxy) Methane	940	U
120-83-2-----	2,4-Dichlorophenol	940	U
120-82-1-----	1,2,4-Trichlorobenzene	940	U
91-20-3-----	Naphthalene	940	U
106-47-8-----	4-Chloroaniline	940	U
87-68-3-----	Hexachlorobutadiene	940	U
59-50-7-----	4-Chloro-3-Methylphenol	940	U
91-57-6-----	2-Methylnaphthalene	940	U
77-47-4-----	Hexachlorocyclopentadiene	940	U
88-06-2-----	2,4,6-Trichlorophenol	940	U
95-95-4-----	2,4,5-Trichlorophenol	1900	U
91-58-7-----	2-Chloronaphthalene	940	U
88-74-4-----	2-Nitroaniline	1900	U
131-11-3-----	Dimethyl Phthalate	940	U
208-96-8-----	Acenaphthylene	940	U
606-20-2-----	2,6-Dinitrotoluene	940	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-06

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY713

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 16 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

99-09-2-----3-Nitroaniline	1900	U
83-32-9-----Acenaphthene	940	U
51-28-5-----2,4-Dinitrophenol	1900	U
100-02-7-----4-Nitrophenol	1900	U
132-64-9-----Dibenzofuran	940	U
121-14-2-----2,4-Dinitrotoluene	940	U
84-66-2-----Diethylphthalate	940	U
7005-72-3-----4-Chlorophenyl-phenylether	940	U
86-73-7-----Fluorene	940	U
100-01-6-----4-Nitroaniline	1900	U
534-52-1-----4,6-Dinitro-2-Methylphenol	1900	U
86-30-6-----N-Nitrosodiphenylamine (1)	940	U
101-55-3-----4-Bromophenyl-phenylether	940	U
118-74-1-----Hexachlorobenzene	940	U
87-86-5-----Pentachlorophenol	1900	U
85-01-8-----Phenanthrene	940	U
120-12-7-----Anthracene	940	U
86-74-8-----Carbazole	940	U
84-74-2-----Di-n-Butylphthalate	940	U
206-44-0-----Fluoranthene	940	U
129-00-0-----Pyrene	940	U
85-68-7-----Butylbenzylphthalate	940	U
91-94-1-----3,3'-Dichlorobenzidine	940	U
56-55-3-----Benzo (a) Anthracene	940	U
218-01-9-----Chrysene	940	U
117-81-7-----bis(2-Ethylhexyl) Phthalate	250	J
117-84-0-----Di-n-Octyl Phthalate	940	U
205-99-2-----Benzo (b) Fluoranthene	940	U
207-08-9-----Benzo (k) Fluoranthene	940	U
50-32-8-----Benzo (a) Pyrene	940	U
193-39-5-----Indeno (1,2,3-cd) Pyrene	940	U
53-70-3-----Dibenzo (a,h) Anthracene	940	U
191-24-2-----Benzo (g,h,i) Perylene	940	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW986

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

108-95-2-----Phenol	5	U
111-44-4-----bis(2-Chloroethyl) Ether	5	U
95-57-8-----2-Chlorophenol	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
100-51-6-----Benzyl Alcohol	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
95-48-7-----2-Methylphenol	5	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----4-Methylphenol	5	U
621-64-7-----N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----Hexachloroethane	5	U
98-95-3-----Nitrobenzene	5	U
78-59-1-----Isophorone	5	U
88-75-5-----2-Nitrophenol	5	U
105-67-9-----2,4-Dimethylphenol	5	U
65-85-0-----Benzoic Acid	5	U
111-91-1-----bis(2-Chloroethoxy) Methane	5	U
120-83-2-----2,4-Dichlorophenol	5	U
120-82-1-----1,2,4-Trichlorobenzene	5	U
91-20-3-----Naphthalene	5	U
106-47-8-----4-Chloroaniline	5	U
87-68-3-----Hexachlorobutadiene	5	U
59-50-7-----4-Chloro-3-Methylphenol	5	U
91-57-6-----2-Methylnaphthalene	5	U
77-47-4-----Hexachlorocyclopentadiene	5	U
88-06-2-----2,4,6-Trichlorophenol	5	U
95-95-4-----2,4,5-Trichlorophenol	10	U
91-58-7-----2-Chloronaphthalene	5	U
88-74-4-----2-Nitroaniline	10	U
131-11-3-----Dimethyl Phthalate	5	U
208-96-8-----Acenaphthylene	5	U
606-20-2-----2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-16

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW986

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

99-09-2-----3-Nitroaniline	10	U
83-32-9-----Acenaphthene	5	U
51-28-5-----2,4-Dinitrophenol	10	U
100-02-7-----4-Nitrophenol	10	U
132-64-9-----Dibenzofuran	5	U
121-14-2-----2,4-Dinitrotoluene	5	U
84-66-2-----Diethylphthalate	5	U
7005-72-3-----4-Chlorophenyl-phenylether	5	U
86-73-7-----Fluorene	5	U
100-01-6-----4-Nitroaniline	10	U
534-52-1-----4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----N-Nitrosodiphenylamine (1)	5	U
101-55-3-----4-Bromophenyl-phenylether	5	U
118-74-1-----Hexachlorobenzene	5	U
87-86-5-----Pentachlorophenol	10	U
85-01-8-----Phenanthrene	5	U
120-12-7-----Anthracene	5	U
86-74-8-----Carbazole	5	U
84-74-2-----Di-n-Butylphthalate	5	U
206-44-0-----Fluoranthene	5	U
129-00-0-----Pyrene	5	U
85-68-7-----Butylbenzylphthalate	5	U
91-94-1-----3,3'-Dichlorobenzidine	5	U
56-55-3-----Benzo(a)Anthracene	5	U
218-01-9-----Chrysene	5	U
117-81-7-----bis(2-Ethylhexyl) Phthalate	5	U
117-84-0-----Di-n-Octyl Phthalate	5	U
205-99-2-----Benzo(b) Fluoranthene	5	U
207-08-9-----Benzo(k) Fluoranthene	5	U
50-32-8-----Benzo(a) Pyrene	5	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	5	U
53-70-3-----Dibenzo(a,h) Anthracene	5	U
191-24-2-----Benzo(g,h,i) Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

L Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-17

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW987

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy) Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

Lab Name: CEIMIC CORP Contract: TETRA TECH  
Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
Matrix: (soil/water) WATER Lab Sample ID: 990799-17  
Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW987  
Level: (low/med) LOW Date Received: 09/11/99  
% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99  
Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99  
Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo (a) Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	2	BJ
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo (b) Fluoranthene	5	U
207-08-9-----	Benzo (k) Fluoranthene	5	U
50-32-8-----	Benzo (a) Pyrene	5	U
193-39-5-----	Indeno (1,2,3-cd) Pyrene	5	U
53-70-3-----	Dibenzo (a,h) Anthracene	5	U
191-24-2-----	Benzo (g,h,i) Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW998

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

108-95-2-----Phenol	5	U
111-44-4-----bis(2-Chloroethyl) Ether	5	U
95-57-8-----2-Chlorophenol	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
100-51-6-----Benzyl Alcohol	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
95-48-7-----2-Methylphenol	5	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----4-Methylphenol	5	U
621-64-7-----N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----Hexachloroethane	5	U
98-95-3-----Nitrobenzene	5	U
78-59-1-----Isophorone	5	U
88-75-5-----2-Nitrophenol	5	U
105-67-9-----2,4-Dimethylphenol	5	U
65-85-0-----Benzoic Acid	5	U
111-91-1-----bis(2-Chloroethoxy)Methane	5	U
120-83-2-----2,4-Dichlorophenol	5	U
120-82-1-----1,2,4-Trichlorobenzene	5	U
91-20-3-----Naphthalene	5	U
106-47-8-----4-Chloroaniline	5	U
87-68-3-----Hexachlorobutadiene	5	U
59-50-7-----4-Chloro-3-Methylphenol	5	U
91-57-6-----2-Methylnaphthalene	5	U
77-47-4-----Hexachlorocyclopentadiene	5	U
88-06-2-----2,4,6-Trichlorophenol	5	U
95-95-4-----2,4,5-Trichlorophenol	10	U
91-58-7-----2-Chloronaphthalene	5	U
88-74-4-----2-Nitroaniline	10	U
131-11-3-----Dimethyl Phthalate	5	U
208-96-8-----Acenaphthylene	5	U
606-20-2-----2,6-Dinitrotoluene	5	U



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-18

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW998

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

b Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-20

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DX000

Level: (low/med) LOW Date Received: 09/11/99

Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy) Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-20

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DX000

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	2	BJ
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-19

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW999

Level: (low/med) LOW Date Received: 09/11/99

Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

SPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	5	U
111-44-4	bis(2-Chloroethyl) Ether	5	U
95-57-8	2-Chlorophenol	5	U
541-73-1	1,3-Dichlorobenzene	5	U
106-46-7	1,4-Dichlorobenzene	5	U
100-51-6	Benzyl Alcohol	5	U
95-50-1	1,2-Dichlorobenzene	5	U
95-48-7	2-Methylphenol	5	U
108-60-1	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5	4-Methylphenol	5	U
621-64-7	N-Nitroso-Di-n-Propylamine	5	U
67-72-1	Hexachloroethane	5	U
98-95-3	Nitrobenzene	5	U
78-59-1	Isophorone	5	U
88-75-5	2-Nitrophenol	5	U
105-67-9	2,4-Dimethylphenol	5	U
65-85-0	Benzoic Acid	5	U
111-91-1	bis(2-Chloroethoxy) Methane	5	U
120-83-2	2,4-Dichlorophenol	5	U
120-82-1	1,2,4-Trichlorobenzene	5	U
91-20-3	Naphthalene	5	U
106-47-8	4-Chloroaniline	5	U
87-68-3	Hexachlorobutadiene	5	U
59-50-7	4-Chloro-3-Methylphenol	5	U
91-57-6	2-Methylnaphthalene	5	U
77-47-4	Hexachlorocyclopentadiene	5	U
88-06-2	2,4,6-Trichlorophenol	5	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	5	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethyl Phthalate	5	U
208-96-8	Acenaphthylene	5	U
606-20-2	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-19

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW999

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.

COMPOUND

99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	5	U
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX022

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	1800	U
111-44-4	bis(2-Chloroethyl) Ether	1800	U
95-57-8	2-Chlorophenol	1800	U
541-73-1	1,3-Dichlorobenzene	1800	U
106-46-7	1,4-Dichlorobenzene	1800	U
100-51-6	Benzyl Alcohol	1800	U
95-50-1	1,2-Dichlorobenzene	1800	U
95-48-7	2-Methylphenol	1800	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1800	U
106-44-5	4-Methylphenol	1800	U
621-64-7	N-Nitroso-Di-n-Propylamine	1800	U
67-72-1	Hexachloroethane	1800	U
98-95-3	Nitrobenzene	1800	U
78-59-1	Isophorone	1800	U
88-75-5	2-Nitrophenol	1800	U
105-67-9	2,4-Dimethylphenol	1800	U
65-85-0	Benzoic Acid	3700	U
111-91-1	bis(2-Chloroethoxy) Methane	1800	U
120-83-2	2,4-Dichlorophenol	1800	U
120-82-1	1,2,4-Trichlorobenzene	1800	U
91-20-3	Naphthalene	1800	U
106-47-8	4-Chloroaniline	1800	U
87-68-3	Hexachlorobutadiene	1800	U
59-50-7	4-Chloro-3-Methylphenol	1800	U
91-57-6	2-Methylnaphthalene	1800	U
77-47-4	Hexachlorocyclopentadiene	1800	U
88-06-2	2,4,6-Trichlorophenol	1800	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	1800	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethyl Phthalate	1800	U
208-96-8	Acenaphthylene	1800	U
606-20-2	2,6-Dinitrotoluene	1800	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX022

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	3700	U
83-32-9-----	Acenaphthene	1800	U
51-28-5-----	2,4-Dinitrophenol	3700	U
100-02-7-----	4-Nitrophenol	3700	U
132-64-9-----	Dibenzofuran	1800	U
121-14-2-----	2,4-Dinitrotoluene	1800	U
84-66-2-----	Diethylphthalate	1800	U
7005-72-3-----	4-Chlorophenyl-phenylether	1800	U
86-73-7-----	Fluorene	1800	U
100-01-6-----	4-Nitroaniline	3700	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	3700	U
86-30-6-----	N-Nitrosodiphenylamine (1)	1800	U
101-55-3-----	4-Bromophenyl-phenylether	1800	U
118-74-1-----	Hexachlorobenzene	1800	U
87-86-5-----	Pentachlorophenol	3700	U
85-01-8-----	Phenanthrene	1800	U
120-12-7-----	Anthracene	1800	U
86-74-8-----	Carbazole	1800	U
84-74-2-----	Di-n-Butylphthalate	1800	U
206-44-0-----	Fluoranthene	1800	U
129-00-0-----	Pyrene	1800	U
85-68-7-----	Butylbenzylphthalate	1800	U
91-94-1-----	3,3'-Dichlorobenzidine	1800	U
56-55-3-----	Benzo(a)Anthracene	1800	U
218-01-9-----	Chrysene	1800	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1500	J
117-84-0-----	Di-n-Octyl Phthalate	1800	U
205-99-2-----	Benzo(b)Fluoranthene	1800	U
207-08-9-----	Benzo(k)Fluoranthene	1800	U
50-32-8-----	Benzo(a)Pyrene	1800	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	1800	U
53-70-3-----	Dibenzo(a,h)Anthracene	1800	U
191-24-2-----	Benzo(g,h,i)Perylene	1800	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-04

Sample wt/vol: 30.2 (g/mL) G Lab File ID: JY711

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	960	U
111-44-4	bis(2-Chloroethyl) Ether	960	U
95-57-8	2-Chlorophenol	960	U
541-73-1	1,3-Dichlorobenzene	960	U
106-46-7	1,4-Dichlorobenzene	960	U
100-51-6	Benzyl Alcohol	960	U
95-50-1	1,2-Dichlorobenzene	960	U
95-48-7	2-Methylphenol	960	U
108-60-1	2,2'-oxybis(1-Chloropropane)	960	U
106-44-5	4-Methylphenol	960	U
621-64-7	N-Nitroso-Di-n-Propylamine	960	U
67-72-1	Hexachloroethane	960	U
98-95-3	Nitrobenzene	960	U
78-59-1	Isophorone	960	U
88-75-5	2-Nitrophenol	960	U
105-67-9	2,4-Dimethylphenol	960	U
65-85-0	Benzoic Acid	2000	U
111-91-1	bis(2-Chloroethoxy)Methane	960	U
120-83-2	2,4-Dichlorophenol	960	U
120-82-1	1,2,4-Trichlorobenzene	960	U
91-20-3	Naphthalene	960	U
106-47-8	4-Chloroaniline	960	U
87-68-3	Hexachlorobutadiene	960	U
59-50-7	4-Chloro-3-Methylphenol	960	U
91-57-6	2-Methylnaphthalene	960	U
77-47-4	Hexachlorocyclopentadiene	960	U
88-06-2	2,4,6-Trichlorophenol	960	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	960	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethyl Phthalate	960	U
208-96-8	Acenaphthylene	960	U
606-20-2	2,6-Dinitrotoluene	960	U



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-04

Sample wt/vol: 30.2 (g/mL) G Lab File ID: JY711

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/30/99

Injection Volume: 2.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	2000	U
83-32-9-----	Acenaphthene	960	U
51-28-5-----	2,4-Dinitrophenol	2000	U
100-02-7-----	4-Nitrophenol	2000	U
132-64-9-----	Dibenzofuran	960	U
121-14-2-----	2,4-Dinitrotoluene	960	U
84-66-2-----	Diethylphthalate	960	U
7005-72-3-----	4-Chlorophenyl-phenylether	960	U
86-73-7-----	Fluorene	960	U
100-01-6-----	4-Nitroaniline	2000	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	2000	U
86-30-6-----	N-Nitrosodiphenylamine (1)	960	U
101-55-3-----	4-Bromophenyl-phenylether	960	U
118-74-1-----	Hexachlorobenzene	960	U
87-86-5-----	Pentachlorophenol	2000	U
85-01-8-----	Phenanthrene	960	U
120-12-7-----	Anthracene	960	U
86-74-8-----	Carbazole	960	U
84-74-2-----	Di-n-Butylphthalate	960	U
206-44-0-----	Fluoranthene	960	U
129-00-0-----	Pyrene	960	U
85-68-7-----	Butylbenzylphthalate	960	U
91-94-1-----	3,3'-Dichlorobenzidine	960	U
56-55-3-----	Benzo(a)Anthracene	960	U
218-01-9-----	Chrysene	960	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	960	U
117-84-0-----	Di-n-Octyl Phthalate	960	U
205-99-2-----	Benzo(b)Fluoranthene	960	U
207-08-9-----	Benzo(k)Fluoranthene	960	U
50-32-8-----	Benzo(a)Pyrene	960	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	960	U
53-70-3-----	Dibenzo(a,h)Anthracene	960	U
191-24-2-----	Benzo(g,h,i)Perylene	960	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-07

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX017

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	170	U
111-44-4	bis(2-Chloroethyl) Ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
100-51-6	Benzyl Alcohol	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-Di-n-Propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
65-85-0	Benzoic Acid	61	J
111-91-1	bis(2-Chloroethoxy) Methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-Methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	350	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethyl Phthalate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-07

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX017

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

99-09-2-----	3-Nitroaniline	350	U
83-32-9-----	Acenaphthene	170	U
51-28-5-----	2,4-Dinitrophenol	350	U
100-02-7-----	4-Nitrophenol	350	U
132-64-9-----	Dibenzofuran	170	U
121-14-2-----	2,4-Dinitrotoluene	170	U
84-66-2-----	Diethylphthalate	170	U
7005-72-3-----	4-Chlorophenyl-phenylether	170	U
86-73-7-----	Fluorene	170	U
100-01-6-----	4-Nitroaniline	350	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	350	U
86-30-6-----	N-Nitrosodiphenylamine (1)	170	U
101-55-3-----	4-Bromophenyl-phenylether	170	U
118-74-1-----	Hexachlorobenzene	170	U
87-86-5-----	Pentachlorophenol	350	U
85-01-8-----	Phenanthrene	170	U
120-12-7-----	Anthracene	170	U
86-74-8-----	Carbazole	170	U
84-74-2-----	Di-n-Butylphthalate	48	J
206-44-0-----	Fluoranthene	170	U
129-00-0-----	Pyrene	170	U
85-68-7-----	Butylbenzylphthalate	170	U
91-94-1-----	3,3'-Dichlorobenzidine	170	U
56-55-3-----	Benzo(a)Anthracene	170	U
218-01-9-----	Chrysene	170	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	40	J
117-84-0-----	Di-n-Octyl Phthalate	170	U
205-99-2-----	Benzo(b)Fluoranthene	170	U
207-08-9-----	Benzo(k)Fluoranthene	170	U
50-32-8-----	Benzo(a)Pyrene	170	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3-----	Dibenzo(a,h)Anthracene	170	U
191-24-2-----	Benzo(g,h,i)Perylene	170	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-08

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX018

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
108-95-2	Phenol	180	U
111-44-4	bis(2-Chloroethyl) Ether	180	U
95-57-8	2-Chlorophenol	180	U
541-73-1	1,3-Dichlorobenzene	180	U
106-46-7	1,4-Dichlorobenzene	180	U
100-51-6	Benzyl Alcohol	180	U
95-50-1	1,2-Dichlorobenzene	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-oxybis(1-Chloropropane)	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-Di-n-Propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
65-85-0	Benzoic Acid	380	U
111-91-1	bis(2-Chloroethoxy) Methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
120-82-1	1,2,4-Trichlorobenzene	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
59-50-7	4-Chloro-3-Methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	380	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	380	U
131-11-3	Dimethyl Phthalate	180	U
208-96-8	Acenaphthylene	180	U
606-20-2	2,6-Dinitrotoluene	180	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-08

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX018

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

99-09-2-----	3-Nitroaniline	380	U
83-32-9-----	Acenaphthene	180	U
51-28-5-----	2,4-Dinitrophenol	380	U
100-02-7-----	4-Nitrophenol	380	U
132-64-9-----	Dibenzofuran	180	U
121-14-2-----	2,4-Dinitrotoluene	180	U
84-66-2-----	Diethylphthalate	180	U
7005-72-3-----	4-Chlorophenyl-phenylether	180	U
86-73-7-----	Fluorene	180	U
100-01-6-----	4-Nitroaniline	380	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	380	U
86-30-6-----	N-Nitrosodiphenylamine (1)	180	U
101-55-3-----	4-Bromophenyl-phenylether	180	U
118-74-1-----	Hexachlorobenzene	180	U
87-86-5-----	Pentachlorophenol	380	U
85-01-8-----	Phenanthrene	180	U
120-12-7-----	Anthracene	180	U
86-74-8-----	Carbazole	180	U
84-74-2-----	Di-n-Butylphthalate	39	J
206-44-0-----	Fluoranthene	180	U
129-00-0-----	Pyrene	180	U
85-68-7-----	Butylbenzylphthalate	180	U
91-94-1-----	3,3'-Dichlorobenzidine	180	U
56-55-3-----	Benzo(a) Anthracene	180	U
218-01-9-----	Chrysene	180	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	58	J
117-84-0-----	Di-n-Octyl Phthalate	180	U
205-99-2-----	Benzo(b) Fluoranthene	180	U
207-08-9-----	Benzo(k) Fluoranthene	180	U
50-32-8-----	Benzo(a) Pyrene	180	U
193-39-5-----	Indeno(1,2,3-cd) Pyrene	180	U
53-70-3-----	Dibenzo(a,h) Anthracene	180	U
191-24-2-----	Benzo(g,h,i) Perylene	180	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

L Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW985

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	1	J
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy) Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-11

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW985

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a) Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	5	U
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b) Fluoranthene	5	U
207-08-9-----	Benzo(k) Fluoranthene	5	U
50-32-8-----	Benzo(a) Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd) Pyrene	5	U
53-70-3-----	Dibenzo(a,h) Anthracene	5	U
191-24-2-----	Benzo(g,h,i) Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW984

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

108-95-2-----Phenol	5	U
111-44-4-----bis(2-Chloroethyl) Ether	5	U
95-57-8-----2-Chlorophenol	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
100-51-6-----Benzyl Alcohol	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
95-48-7-----2-Methylphenol	5	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----4-Methylphenol	5	U
621-64-7-----N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----Hexachloroethane	5	U
98-95-3-----Nitrobenzene	5	U
78-59-1-----Isophorone	5	U
88-75-5-----2-Nitrophenol	5	U
105-67-9-----2,4-Dimethylphenol	5	U
65-85-0-----Benzoic Acid	5	U
111-91-1-----bis(2-Chloroethoxy) Methane	5	U
120-83-2-----2,4-Dichlorophenol	5	U
120-82-1-----1,2,4-Trichlorobenzene	5	U
91-20-3-----Naphthalene	5	U
106-47-8-----4-Chloroaniline	5	U
87-68-3-----Hexachlorobutadiene	5	U
59-50-7-----4-Chloro-3-Methylphenol	5	U
91-57-6-----2-Methylnaphthalene	5	U
77-47-4-----Hexachlorocyclopentadiene	5	U
88-06-2-----2,4,6-Trichlorophenol	5	U
95-95-4-----2,4,5-Trichlorophenol	10	U
91-58-7-----2-Chloronaphthalene	5	U
88-74-4-----2-Nitroaniline	10	U
131-11-3-----Dimethyl Phthalate	5	U
208-96-8-----Acenaphthylene	5	U
606-20-2-----2,6-Dinitrotoluene	5	U



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: 990799-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW984

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

99-09-2-----3-Nitroaniline	10	U
83-32-9-----Acenaphthene	5	U
51-28-5-----2,4-Dinitrophenol	10	U
100-02-7-----4-Nitrophenol	10	U
132-64-9-----Dibenzofuran	5	U
121-14-2-----2,4-Dinitrotoluene	5	U
84-66-2-----Diethylphthalate	5	U
7005-72-3-----4-Chlorophenyl-phenylether	5	U
86-73-7-----Fluorene	5	U
100-01-6-----4-Nitroaniline	10	U
534-52-1-----4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----N-Nitrosodiphenylamine (1)	5	U
101-55-3-----4-Bromophenyl-phenylether	5	U
118-74-1-----Hexachlorobenzene	5	U
87-86-5-----Pentachlorophenol	10	U
85-01-8-----Phenanthrene	5	U
120-12-7-----Anthracene	5	U
86-74-8-----Carbazole	5	U
84-74-2-----Di-n-Butylphthalate	5	U
206-44-0-----Fluoranthene	5	U
129-00-0-----Pyrene	5	U
85-68-7-----Butylbenzylphthalate	5	U
91-94-1-----3,3'-Dichlorobenzidine	5	U
56-55-3-----Benzo(a)Anthracene	5	U
218-01-9-----Chrysene	5	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	3	BJ
117-84-0-----Di-n-Octyl Phthalate	5	U
205-99-2-----Benzo(b)Fluoranthene	5	U
207-08-9-----Benzo(k)Fluoranthene	5	U
50-32-8-----Benzo(a)Pyrene	5	U
193-39-5-----Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----Dibenzo(a,h)Anthracene	5	U
191-24-2-----Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-02

Sample wt/vol: 30.3 (g/mL) G Lab File ID: JY648

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

108-95-2-----	Phenol	180	U
111-44-4-----	bis(2-Chloroethyl) Ether	180	U
95-57-8-----	2-Chlorophenol	180	U
541-73-1-----	1,3-Dichlorobenzene	180	U
106-46-7-----	1,4-Dichlorobenzene	180	U
100-51-6-----	Benzyl Alcohol	180	U
95-50-1-----	1,2-Dichlorobenzene	180	U
95-48-7-----	2-Methylphenol	180	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	180	U
106-44-5-----	4-Methylphenol	180	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	180	U
67-72-1-----	Hexachloroethane	180	U
98-95-3-----	Nitrobenzene	180	U
78-59-1-----	Isophorone	180	U
88-75-5-----	2-Nitrophenol	180	U
105-67-9-----	2,4-Dimethylphenol	180	U
65-85-0-----	Benzoic Acid	380	U
111-91-1-----	bis(2-Chloroethoxy) Methane	180	U
120-83-2-----	2,4-Dichlorophenol	180	U
120-82-1-----	1,2,4-Trichlorobenzene	180	U
91-20-3-----	Naphthalene	180	U
106-47-8-----	4-Chloroaniline	180	U
87-68-3-----	Hexachlorobutadiene	180	U
59-50-7-----	4-Chloro-3-Methylphenol	180	U
91-57-6-----	2-Methylnaphthalene	180	U
77-47-4-----	Hexachlorocyclopentadiene	180	U
88-06-2-----	2,4,6-Trichlorophenol	180	U
95-95-4-----	2,4,5-Trichlorophenol	380	U
91-58-7-----	2-Chloronaphthalene	180	U
88-74-4-----	2-Nitroaniline	380	U
131-11-3-----	Dimethyl Phthalate	180	U
208-96-8-----	Acenaphthylene	180	U
606-20-2-----	2,6-Dinitrotoluene	180	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-02

Sample wt/vol: 30.3 (g/mL) G Lab File ID: JY648

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	380	U
83-32-9-----	Acenaphthene	180	U
51-28-5-----	2,4-Dinitrophenol	380	U
100-02-7-----	4-Nitrophenol	380	U
132-64-9-----	Dibenzofuran	180	U
121-14-2-----	2,4-Dinitrotoluene	180	U
84-66-2-----	Diethylphthalate	180	U
7005-72-3-----	4-Chlorophenyl-phenylether	180	U
86-73-7-----	Fluorene	180	U
100-01-6-----	4-Nitroaniline	380	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	380	U
86-30-6-----	N-Nitrosodiphenylamine (1)	180	U
101-55-3-----	4-Bromophenyl-phenylether	180	U
118-74-1-----	Hexachlorobenzene	180	U
87-86-5-----	Pentachlorophenol	380	U
85-01-8-----	Phenanthrene	180	U
120-12-7-----	Anthracene	180	U
86-74-8-----	Carbazole	180	U
84-74-2-----	Di-n-Butylphthalate	77	J
206-44-0-----	Fluoranthene	48	J
129-00-0-----	Pyrene	40	J
85-68-7-----	Butylbenzylphthalate	180	U
91-94-1-----	3,3'-Dichlorobenzidine	180	U
56-55-3-----	Benzo(a)Anthracene	180	U
218-01-9-----	Chrysene	180	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	71	J
117-84-0-----	Di-n-Octyl Phthalate	180	U
205-99-2-----	Benzo(b)Fluoranthene	180	U
207-08-9-----	Benzo(k)Fluoranthene	180	U
50-32-8-----	Benzo(a)Pyrene	180	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	180	U
53-70-3-----	Dibenzo(a,h)Anthracene	180	U
191-24-2-----	Benzo(g,h,i)Perylene	180	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-01

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY694

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
108-95-2	Phenol	180	U
111-44-4	bis(2-Chloroethyl) Ether	180	U
95-57-8	2-Chlorophenol	180	U
541-73-1	1,3-Dichlorobenzene	180	U
106-46-7	1,4-Dichlorobenzene	180	U
100-51-6	Benzyl Alcohol	180	U
95-50-1	1,2-Dichlorobenzene	180	U
95-48-7	2-Methylphenol	180	U
108-60-1	2,2'-oxybis(1-Chloropropane)	180	U
106-44-5	4-Methylphenol	180	U
621-64-7	N-Nitroso-Di-n-Propylamine	180	U
67-72-1	Hexachloroethane	180	U
98-95-3	Nitrobenzene	180	U
78-59-1	Isophorone	180	U
88-75-5	2-Nitrophenol	180	U
105-67-9	2,4-Dimethylphenol	180	U
65-85-0	Benzoic Acid	120	J
111-91-1	bis(2-Chloroethoxy) Methane	180	U
120-83-2	2,4-Dichlorophenol	180	U
120-82-1	1,2,4-Trichlorobenzene	180	U
91-20-3	Naphthalene	180	U
106-47-8	4-Chloroaniline	180	U
87-68-3	Hexachlorobutadiene	180	U
59-50-7	4-Chloro-3-Methylphenol	180	U
91-57-6	2-Methylnaphthalene	180	U
77-47-4	Hexachlorocyclopentadiene	180	U
88-06-2	2,4,6-Trichlorophenol	180	U
95-95-4	2,4,5-Trichlorophenol	370	U
91-58-7	2-Chloronaphthalene	180	U
88-74-4	2-Nitroaniline	370	U
131-11-3	Dimethyl Phthalate	180	U
208-96-8	Acenaphthylene	180	U
606-20-2	2,6-Dinitrotoluene	180	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-01

Sample wt/vol: 30.4 (g/mL) G Lab File ID: JY694

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
99-09-2-----	3-Nitroaniline	370	U
83-32-9-----	Acenaphthene	180	U
51-28-5-----	2,4-Dinitrophenol	370	U
100-02-7-----	4-Nitrophenol	370	U
132-64-9-----	Dibenzofuran	180	U
121-14-2-----	2,4-Dinitrotoluene	180	U
84-66-2-----	Diethylphthalate	180	U
7005-72-3-----	4-Chlorophenyl-phenylether	180	U
86-73-7-----	Fluorene	180	U
100-01-6-----	4-Nitroaniline	370	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	370	U
86-30-6-----	N-Nitrosodiphenylamine (1)	180	U
101-55-3-----	4-Bromophenyl-phenylether	180	U
118-74-1-----	Hexachlorobenzene	180	U
87-86-5-----	Pentachlorophenol	370	U
85-01-8-----	Phenanthrene	180	U
120-12-7-----	Anthracene	180	U
86-74-8-----	Carbazole	180	U
84-74-2-----	Di-n-Butylphthalate	43	J
206-44-0-----	Fluoranthene	180	U
129-00-0-----	Pyrene	180	U
85-68-7-----	Butylbenzylphthalate	180	U
91-94-1-----	3,3'-Dichlorobenzidine	180	U
56-55-3-----	Benzo(a)Anthracene	180	U
218-01-9-----	Chrysene	180	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	180	U
117-84-0-----	Di-n-Octyl Phthalate	180	U
205-99-2-----	Benzo(b)Fluoranthene	180	U
207-08-9-----	Benzo(k)Fluoranthene	180	U
50-32-8-----	Benzo(a)Pyrene	180	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	180	U
53-70-3-----	Dibenzo(a,h)Anthracene	180	U
191-24-2-----	Benzo(g,h,i)Perylene	180	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-13

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX020

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
108-95-2	Phenol	200	U
111-44-4	bis(2-Chloroethyl) Ether	200	U
95-57-8	2-Chlorophenol	200	U
541-73-1	1,3-Dichlorobenzene	200	U
106-46-7	1,4-Dichlorobenzene	200	U
100-51-6	Benzyl Alcohol	200	U
95-50-1	1,2-Dichlorobenzene	200	U
95-48-7	2-Methylphenol	200	U
108-60-1	2,2'-oxybis(1-Chloropropane)	200	U
106-44-5	4-Methylphenol	200	U
621-64-7	N-Nitroso-Di-n-Propylamine	200	U
67-72-1	Hexachloroethane	200	U
98-95-3	Nitrobenzene	200	U
78-59-1	Isophorone	200	U
88-75-5	2-Nitrophenol	200	U
105-67-9	2,4-Dimethylphenol	200	U
65-85-0	Benzoic Acid	86	J
111-91-1	bis(2-Chloroethoxy) Methane	200	U
120-83-2	2,4-Dichlorophenol	200	U
120-82-1	1,2,4-Trichlorobenzene	200	U
91-20-3	Naphthalene	200	U
106-47-8	4-Chloroaniline	200	U
87-68-3	Hexachlorobutadiene	200	U
59-50-7	4-Chloro-3-Methylphenol	200	U
91-57-6	2-Methylnaphthalene	200	U
77-47-4	Hexachlorocyclopentadiene	200	U
88-06-2	2,4,6-Trichlorophenol	200	U
95-95-4	2,4,5-Trichlorophenol	410	U
91-58-7	2-Chloronaphthalene	200	U
88-74-4	2-Nitroaniline	410	U
131-11-3	Dimethyl Phthalate	200	U
208-96-8	Acenaphthylene	200	U
606-20-2	2,6-Dinitrotoluene	200	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-13

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX020

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

99-09-2-----3-Nitroaniline	410	U
83-32-9-----Acenaphthene	200	U
51-28-5-----2,4-Dinitrophenol	410	U
100-02-7-----4-Nitrophenol	410	U
132-64-9-----Dibenzofuran	200	U
121-14-2-----2,4-Dinitrotoluene	200	U
84-66-2-----Diethylphthalate	200	U
7005-72-3-----4-Chlorophenyl-phenylether	200	U
86-73-7-----Fluorene	200	U
100-01-6-----4-Nitroaniline	410	U
534-52-1-----4,6-Dinitro-2-Methylphenol	410	U
86-30-6-----N-Nitrosodiphenylamine (1)	200	U
101-55-3-----4-Bromophenyl-phenylether	200	U
118-74-1-----Hexachlorobenzene	200	U
87-86-5-----Pentachlorophenol	410	U
85-01-8-----Phenanthrene	200	U
120-12-7-----Anthracene	200	U
86-74-8-----Carbazole	200	U
84-74-2-----Di-n-Butylphthalate	83	J
206-44-0-----Fluoranthene	200	U
129-00-0-----Pyrene	200	U
85-68-7-----Butylbenzylphthalate	200	U
91-94-1-----3,3'-Dichlorobenzidine	200	U
56-55-3-----Benzo(a)Anthracene	200	U
218-01-9-----Chrysene	200	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	680	
117-84-0-----Di-n-Octyl Phthalate	200	U
205-99-2-----Benzo(b)Fluoranthene	200	U
207-08-9-----Benzo(k)Fluoranthene	200	U
50-32-8-----Benzo(a)Pyrene	200	U
193-39-5-----Indeno(1,2,3-cd)Pyrene	200	U
53-70-3-----Dibenzo(a,h)Anthracene	200	U
191-24-2-----Benzo(g,h,i)Perylene	200	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-14

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX021

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	170	U
111-44-4-----	bis(2-Chloroethyl) Ether	170	U
95-57-8-----	2-Chlorophenol	170	U
541-73-1-----	1,3-Dichlorobenzene	170	U
106-46-7-----	1,4-Dichlorobenzene	170	U
100-51-6-----	Benzyl Alcohol	170	U
95-50-1-----	1,2-Dichlorobenzene	170	U
95-48-7-----	2-Methylphenol	170	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5-----	4-Methylphenol	170	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	170	U
67-72-1-----	Hexachloroethane	170	U
98-95-3-----	Nitrobenzene	170	U
78-59-1-----	Isophorone	170	U
88-75-5-----	2-Nitrophenol	170	U
105-67-9-----	2,4-Dimethylphenol	170	U
65-85-0-----	Benzoic Acid	350	U
111-91-1-----	bis(2-Chloroethoxy) Methane	170	U
120-83-2-----	2,4-Dichlorophenol	170	U
120-82-1-----	1,2,4-Trichlorobenzene	170	U
91-20-3-----	Naphthalene	170	U
106-47-8-----	4-Chloroaniline	170	U
87-68-3-----	Hexachlorobutadiene	170	U
59-50-7-----	4-Chloro-3-Methylphenol	170	U
91-57-6-----	2-Methylnaphthalene	170	U
77-47-4-----	Hexachlorocyclopentadiene	170	U
88-06-2-----	2,4,6-Trichlorophenol	170	U
95-95-4-----	2,4,5-Trichlorophenol	350	U
91-58-7-----	2-Chloronaphthalene	170	U
88-74-4-----	2-Nitroaniline	350	U
131-11-3-----	Dimethyl Phthalate	170	U
208-96-8-----	Acenaphthylene	170	U
606-20-2-----	2,6-Dinitrotoluene	170	U



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTQ086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-14

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX021

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

99-09-2-----3-Nitroaniline	350	U
83-32-9-----Acenaphthene	170	U
51-28-5-----2,4-Dinitrophenol	350	U
100-02-7-----4-Nitrophenol	350	U
132-64-9-----Dibenzofuran	170	U
121-14-2-----2,4-Dinitrotoluene	170	U
84-66-2-----Diethylphthalate	170	U
7005-72-3-----4-Chlorophenyl-phenylether	170	U
86-73-7-----Fluorene	170	U
100-01-6-----4-Nitroaniline	350	U
534-52-1-----4,6-Dinitro-2-Methylphenol	350	U
86-30-6-----N-Nitrosodiphenylamine (1)	170	U
101-55-3-----4-Bromophenyl-phenylether	170	U
118-74-1-----Hexachlorobenzene	170	U
87-86-5-----Pentachlorophenol	350	U
85-01-8-----Phenanthrene	170	U
120-12-7-----Anthracene	170	U
86-74-8-----Carbazole	170	U
84-74-2-----Di-n-Butylphthalate	38	J
206-44-0-----Fluoranthene	170	U
129-00-0-----Pyrene	170	U
85-68-7-----Butylbenzylphthalate	170	U
91-94-1-----3,3'-Dichlorobenzidine	170	U
56-55-3-----Benzo(a)Anthracene	170	U
218-01-9-----Chrysene	170	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	91	J
117-84-0-----Di-n-Octyl Phthalate	170	U
205-99-2-----Benzo(b)Fluoranthene	170	U
207-08-9-----Benzo(k)Fluoranthene	170	U
50-32-8-----Benzo(a)Pyrene	170	U
193-39-5-----Indeno(1,2,3-cd)Pyrene	170	U
53-70-3-----Dibenzo(a,h)Anthracene	170	U
191-24-2-----Benzo(g,h,i)Perylene	170	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-05

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-12

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX019

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
108-95-2	Phenol	170	U
111-44-4	bis(2-Chloroethyl) Ether	170	U
95-57-8	2-Chlorophenol	170	U
541-73-1	1,3-Dichlorobenzene	170	U
106-46-7	1,4-Dichlorobenzene	170	U
100-51-6	Benzyl Alcohol	170	U
95-50-1	1,2-Dichlorobenzene	170	U
95-48-7	2-Methylphenol	170	U
108-60-1	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5	4-Methylphenol	170	U
621-64-7	N-Nitroso-Di-n-Propylamine	170	U
67-72-1	Hexachloroethane	170	U
98-95-3	Nitrobenzene	170	U
78-59-1	Isophorone	170	U
88-75-5	2-Nitrophenol	170	U
105-67-9	2,4-Dimethylphenol	170	U
65-85-0	Benzoic Acid	36	J
111-91-1	bis(2-Chloroethoxy)Methane	170	U
120-83-2	2,4-Dichlorophenol	170	U
120-82-1	1,2,4-Trichlorobenzene	170	U
91-20-3	Naphthalene	170	U
106-47-8	4-Chloroaniline	170	U
87-68-3	Hexachlorobutadiene	170	U
59-50-7	4-Chloro-3-Methylphenol	170	U
91-57-6	2-Methylnaphthalene	170	U
77-47-4	Hexachlorocyclopentadiene	170	U
88-06-2	2,4,6-Trichlorophenol	170	U
95-95-4	2,4,5-Trichlorophenol	350	U
91-58-7	2-Chloronaphthalene	170	U
88-74-4	2-Nitroaniline	350	U
131-11-3	Dimethyl Phthalate	170	U
208-96-8	Acenaphthylene	170	U
606-20-2	2,6-Dinitrotoluene	170	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-05

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-12

Sample wt/vol: 30.3 (g/mL) G Lab File ID: IX019

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/28/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.

COMPOUND

99-09-2-----	3-Nitroaniline	350	U
83-32-9-----	Acenaphthene	170	U
51-28-5-----	2,4-Dinitrophenol	350	U
100-02-7-----	4-Nitrophenol	350	U
132-64-9-----	Dibenzofuran	170	U
121-14-2-----	2,4-Dinitrotoluene	170	U
84-66-2-----	Diethylphthalate	170	U
7005-72-3-----	4-Chlorophenyl-phenylether	170	U
86-73-7-----	Fluorene	170	U
100-01-6-----	4-Nitroaniline	350	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	350	U
86-30-6-----	N-Nitrosodiphenylamine (1)	170	U
101-55-3-----	4-Bromophenyl-phenylether	170	U
118-74-1-----	Hexachlorobenzene	170	U
87-86-5-----	Pentachlorophenol	350	U
85-01-8-----	Phenanthrene	170	U
120-12-7-----	Anthracene	170	U
86-74-8-----	Carbazole	170	U
84-74-2-----	Di-n-Butylphthalate	47	J
206-44-0-----	Fluoranthene	170	U
129-00-0-----	Pyrene	170	U
85-68-7-----	Butylbenzylphthalate	170	U
91-94-1-----	3,3'-Dichlorobenzidine	170	U
56-55-3-----	Benzo(a)Anthracene	170	U
218-01-9-----	Chrysene	170	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	170	U
117-84-0-----	Di-n-Octyl Phthalate	170	U
205-99-2-----	Benzo(b)Fluoranthene	170	U
207-08-9-----	Benzo(k)Fluoranthene	170	U
50-32-8-----	Benzo(a)Pyrene	170	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3-----	Dibenzo(a,h)Anthracene	170	U
191-24-2-----	Benzo(g,h,i)Perylene	170	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

La. Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-03

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX025

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	3400	U
111-44-4-----	bis(2-Chloroethyl) Ether	3400	U
95-57-8-----	2-Chlorophenol	3400	U
541-73-1-----	1,3-Dichlorobenzene	3400	U
106-46-7-----	1,4-Dichlorobenzene	3400	U
100-51-6-----	Benzyl Alcohol	3400	U
95-50-1-----	1,2-Dichlorobenzene	3400	U
95-48-7-----	2-Methylphenol	3400	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	3400	U
106-44-5-----	4-Methylphenol	3400	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	3400	U
67-72-1-----	Hexachloroethane	3400	U
98-95-3-----	Nitrobenzene	3400	U
78-59-1-----	Isophorone	3400	U
88-75-5-----	2-Nitrophenol	3400	U
105-67-9-----	2,4-Dimethylphenol	3400	U
65-85-0-----	Benzoic Acid	7100	U
111-91-1-----	bis(2-Chloroethoxy)Methane	3400	U
120-83-2-----	2,4-Dichlorophenol	3400	U
120-82-1-----	1,2,4-Trichlorobenzene	3400	U
91-20-3-----	Naphthalene	3400	U
106-47-8-----	4-Chloroaniline	3400	U
87-68-3-----	Hexachlorobutadiene	3400	U
59-50-7-----	4-Chloro-3-Methylphenol	3400	U
91-57-6-----	2-Methylnaphthalene	3400	U
77-47-4-----	Hexachlorocyclopentadiene	3400	U
88-06-2-----	2,4,6-Trichlorophenol	3400	U
95-95-4-----	2,4,5-Trichlorophenol	7100	U
91-58-7-----	2-Chloronaphthalene	3400	U
88-74-4-----	2-Nitroaniline	7100	U
131-11-3-----	Dimethyl Phthalate	3400	U
208-96-8-----	Acenaphthylene	3400	U
606-20-2-----	2,6-Dinitrotoluene	3400	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-03

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX025

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 7 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

99-09-2-----3-Nitroaniline	7100	U
83-32-9-----Acenaphthene	3400	U
51-28-5-----2,4-Dinitrophenol	7100	U
100-02-7-----4-Nitrophenol	7100	U
132-64-9-----Dibenzofuran	3400	U
121-14-2-----2,4-Dinitrotoluene	3400	U
84-66-2-----Diethylphthalate	3400	U
7005-72-3-----4-Chlorophenyl-phenylether	3400	U
86-73-7-----Fluorene	3400	U
100-01-6-----4-Nitroaniline	7100	U
534-52-1-----4,6-Dinitro-2-Methylphenol	7100	U
86-30-6-----N-Nitrosodiphenylamine (1)	3400	U
101-55-3-----4-Bromophenyl-phenylether	3400	U
118-74-1-----Hexachlorobenzene	3400	U
87-86-5-----Pentachlorophenol	7100	U
85-01-8-----Phenanthrene	3400	U
120-12-7-----Anthracene	3400	U
86-74-8-----Carbazole	3400	U
84-74-2-----Di-n-Butylphthalate	3400	U
206-44-0-----Fluoranthene	3400	U
129-00-0-----Pyrene	3400	U
85-68-7-----Butylbenzylphthalate	3400	U
91-94-1-----3,3'-Dichlorobenzidine	3400	U
56-55-3-----Benzo(a)Anthracene	3400	U
218-01-9-----Chrysene	3400	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	3600	
117-84-0-----Di-n-Octyl Phthalate	3400	U
205-99-2-----Benzo(b)Fluoranthene	3400	U
207-08-9-----Benzo(k)Fluoranthene	3400	U
50-32-8-----Benzo(a)Pyrene	3400	U
193-39-5-----Indeno(1,2,3-cd)Pyrene	3400	U
53-70-3-----Dibenzo(a,h)Anthracene	3400	U
191-24-2-----Benzo(g,h,i)Perylene	3400	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	
108-95-2	Phenol	18
111-44-4	bis(2-Chloroethyl) Ether	27
95-57-8	2-Chlorophenol	27
541-73-1	1,3-Dichlorobenzene	25
106-46-7	1,4-Dichlorobenzene	24
100-51-6	Benzyl Alcohol	32
95-50-1	1,2-Dichlorobenzene	25
95-48-7	2-Methylphenol	27
108-60-1	2,2'-oxybis(1-Chloropropane)	29
106-44-5	4-Methylphenol	28
621-64-7	N-Nitroso-Di-n-Propylamine	29
67-72-1	Hexachloroethane	24
98-95-3	Nitrobenzene	30
78-59-1	Isophorone	31
88-75-5	2-Nitrophenol	32
105-67-9	2,4-Dimethylphenol	22
65-85-0	Benzoic Acid	29
111-91-1	bis(2-Chloroethoxy) Methane	32
120-83-2	2,4-Dichlorophenol	31
120-82-1	1,2,4-Trichlorobenzene	27
91-20-3	Naphthalene	29
106-47-8	4-Chloroaniline	26
87-68-3	Hexachlorobutadiene	28
59-50-7	4-Chloro-3-Methylphenol	34
91-57-6	2-Methylnaphthalene	32
77-47-4	Hexachlorocyclopentadiene	25
88-06-2	2,4,6-Trichlorophenol	35
95-95-4	2,4,5-Trichlorophenol	34
91-58-7	2-Chloronaphthalene	32
88-74-4	2-Nitroaniline	35
131-11-3	Dimethyl Phthalate	34
208-96-8	Acenaphthylene	33
606-20-2	2,6-Dinitrotoluene	37

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

99-09-2-----	3-Nitroaniline	34	
83-32-9-----	Acenaphthene	33	
51-28-5-----	2,4-Dinitrophenol	33	
100-02-7-----	4-Nitrophenol	22	
132-64-9-----	Dibenzofuran	34	
121-14-2-----	2,4-Dinitrotoluene	38	
84-66-2-----	Diethylphthalate	34	
7005-72-3-----	4-Chlorophenyl-phenylether	35	
86-73-7-----	Fluorene	35	
100-01-6-----	4-Nitroaniline	35	
534-52-1-----	4,6-Dinitro-2-Methylphenol	39	
86-30-6-----	N-Nitrosodiphenylamine (1)	37	
101-55-3-----	4-Bromophenyl-phenylether	37	
118-74-1-----	Hexachlorobenzene	38	
87-86-5-----	Pentachlorophenol	33	
85-01-8-----	Phenanthrene	37	
120-12-7-----	Anthracene	37	
86-74-8-----	Carbazole	38	
84-74-2-----	Di-n-Butylphthalate	39	B
206-44-0-----	Fluoranthene	39	
129-00-0-----	Pyrene	36	
85-68-7-----	Butylbenzylphthalate	36	
91-94-1-----	3,3'-Dichlorobenzidine	30	
56-55-3-----	Benzo(a)Anthracene	38	
218-01-9-----	Chrysene	37	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	37	B
117-84-0-----	Di-n-Octyl Phthalate	38	
205-99-2-----	Benzo(b) Fluoranthene	36	
207-08-9-----	Benzo(k) Fluoranthene	40	
50-32-8-----	Benzo(a) Pyrene	37	
193-39-5-----	Indeno(1,2,3-cd) Pyrene	34	
53-70-3-----	Dibenzo(a,h) Anthracene	34	
191-24-2-----	Benzo(g,h,i) Perylene	33	

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJI

L Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-LCS5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY638

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

108-95-2-----	Phenol	1000	
111-44-4-----	bis(2-Chloroethyl) Ether	1000	
95-57-8-----	2-Chlorophenol	1000	
541-73-1-----	1,3-Dichlorobenzene	1000	
106-46-7-----	1,4-Dichlorobenzene	950	
100-51-6-----	Benzyl Alcohol	1400	
95-50-1-----	1,2-Dichlorobenzene	1100	
95-48-7-----	2-Methylphenol	1100	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	1100	
106-44-5-----	4-Methylphenol	1100	
621-64-7-----	N-Nitroso-Di-n-Propylamine	1100	
67-72-1-----	Hexachloroethane	980	
98-95-3-----	Nitrobenzene	1100	
78-59-1-----	Isophorone	1200	
88-75-5-----	2-Nitrophenol	1200	
105-67-9-----	2,4-Dimethylphenol	1000	
65-85-0-----	Benzoic Acid	2600	
111-91-1-----	bis(2-Chloroethoxy) Methane	1100	
120-83-2-----	2,4-Dichlorophenol	1200	
120-82-1-----	1,2,4-Trichlorobenzene	1100	
91-20-3-----	Naphthalene	1100	
106-47-8-----	4-Chloroaniline	630	
87-68-3-----	Hexachlorobutadiene	1200	
59-50-7-----	4-Chloro-3-Methylphenol	1200	
91-57-6-----	2-Methylnaphthalene	1200	
77-47-4-----	Hexachlorocyclopentadiene	1000	
88-06-2-----	2,4,6-Trichlorophenol	1100	
95-95-4-----	2,4,5-Trichlorophenol	1200	
91-58-7-----	2-Chloronaphthalene	1200	
88-74-4-----	2-Nitroaniline	1200	
131-11-3-----	Dimethyl Phthalate	1200	
208-96-8-----	Acenaphthylene	1200	
606-20-2-----	2,6-Dinitrotoluene	1300	



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJI

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-LCS5

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY638

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

99-09-2-----	3-Nitroaniline	1000	
83-32-9-----	Acenaphthene	1200	
51-28-5-----	2,4-Dinitrophenol	1200	
100-02-7-----	4-Nitrophenol	1400	
132-64-9-----	Dibenzofuran	1200	
121-14-2-----	2,4-Dinitrotoluene	1600	
84-66-2-----	Diethylphthalate	1400	
7005-72-3-----	4-Chlorophenyl-phenylether	1200	
86-73-7-----	Fluorene	1200	
100-01-6-----	4-Nitroaniline	1300	
534-52-1-----	4,6-Dinitro-2-Methylphenol	1800	
86-30-6-----	N-Nitrosodiphenylamine (1)	1300	
101-55-3-----	4-Bromophenyl-phenylether	1300	
118-74-1-----	Hexachlorobenzene	1400	
87-86-5-----	Pentachlorophenol	500	
85-01-8-----	Phenanthrene	1400	
120-12-7-----	Anthracene	1400	
86-74-8-----	Carbazole	1600	
84-74-2-----	Di-n-Butylphthalate	1700	
206-44-0-----	Fluoranthene	1700	
129-00-0-----	Pyrene	1800	
85-68-7-----	Butylbenzylphthalate	1900	
91-94-1-----	3,3'-Dichlorobenzidine	1100	
56-55-3-----	Benzo(a)Anthracene	1800	
218-01-9-----	Chrysene	1900	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1900	
117-84-0-----	Di-n-Octyl Phthalate	2100	
205-99-2-----	Benzo(b)Fluoranthene	1700	
207-08-9-----	Benzo(k)Fluoranthene	2100	
50-32-8-----	Benzo(a)Pyrene	1900	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	1900	
53-70-3-----	Dibenzo(a,h)Anthracene	1900	
191-24-2-----	Benzo(g,h,i)Perylene	1700	

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJQ

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-LCS7

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY681

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

Q

CAS NO.	COMPOUND	
108-95-2	Phenol	1200
111-44-4	bis(2-Chloroethyl) Ether	1100
95-57-8	2-Chlorophenol	1200
541-73-1	1,3-Dichlorobenzene	1200
106-46-7	1,4-Dichlorobenzene	1100
100-51-6	Benzyl Alcohol	1800
95-50-1	1,2-Dichlorobenzene	1200
95-48-7	2-Methylphenol	1200
108-60-1	2,2'-oxybis(1-Chloropropane)	1100
106-44-5	4-Methylphenol	1300
621-64-7	N-Nitroso-Di-n-Propylamine	1300
67-72-1	Hexachloroethane	1200
98-95-3	Nitrobenzene	1200
78-59-1	Isophorone	1300
88-75-5	2-Nitrophenol	1400
105-67-9	2,4-Dimethylphenol	1300
65-85-0	Benzoic Acid	2100
111-91-1	bis(2-Chloroethoxy) Methane	1300
120-83-2	2,4-Dichlorophenol	1400
120-82-1	1,2,4-Trichlorobenzene	1300
91-20-3	Naphthalene	1200
106-47-8	4-Chloroaniline	1300
87-68-3	Hexachlorobutadiene	1300
59-50-7	4-Chloro-3-Methylphenol	1500
91-57-6	2-Methylnaphthalene	1400
77-47-4	Hexachlorocyclopentadiene	1300
88-06-2	2,4,6-Trichlorophenol	1400
95-95-4	2,4,5-Trichlorophenol	1500
91-58-7	2-Chloronaphthalene	1400
88-74-4	2-Nitroaniline	1600
131-11-3	Dimethyl Phthalate	1600
208-96-8	Acenaphthylene	1400
606-20-2	2,6-Dinitrotoluene	1700

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSJQ

Lab Name: CEIMIC CORP

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO086

SAS No.: \_\_\_\_\_

SDG No.: 02SS02

Matrix: (soil/water) SOIL

Lab Sample ID: S0922-LCS7

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: JY681

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N

Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

99-09-2-----	3-Nitroaniline	1400	
83-32-9-----	Acenaphthene	1400	
51-28-5-----	2,4-Dinitrophenol	1300	
100-02-7-----	4-Nitrophenol	1700	
132-64-9-----	Dibenzofuran	1400	
121-14-2-----	2,4-Dinitrotoluene	1800	
84-66-2-----	Diethylphthalate	1600	
7005-72-3-----	4-Chlorophenyl-phenylether	1500	
86-73-7-----	Fluorene	1500	
100-01-6-----	4-Nitroaniline	1600	
534-52-1-----	4,6-Dinitro-2-Methylphenol	1700	
86-30-6-----	N-Nitrosodiphenylamine (1)	1600	
101-55-3-----	4-Bromophenyl-phenylether	1500	
118-74-1-----	Hexachlorobenzene	1500	
87-86-5-----	Pentachlorophenol	390	
85-01-8-----	Phenanthrene	1500	
120-12-7-----	Anthracene	1500	
86-74-8-----	Carbazole	1500	
84-74-2-----	Di-n-Butylphthalate	1500	
206-44-0-----	Fluoranthene	1600	
129-00-0-----	Pyrene	1500	
85-68-7-----	Butylbenzylphthalate	1700	
91-94-1-----	3,3'-Dichlorobenzidine	1500	
56-55-3-----	Benzo (a) Anthracene	1600	
218-01-9-----	Chrysene	1600	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	1700	
117-84-0-----	Di-n-Octyl Phthalate	1800	
205-99-2-----	Benzo (b) Fluoranthene	1600	
207-08-9-----	Benzo (k) Fluoranthene	1700	
50-32-8-----	Benzo (a) Pyrene	1600	
193-39-5-----	Indeno (1,2,3-cd) Pyrene	1600	
53-70-3-----	Dibenzo (a,h) Anthracene	1100	
191-24-2-----	Benzo (g,h,i) Perylene	1600	

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/L

Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl)Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy)Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	1	J
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	2	J
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b) Fluoranthene	5	U
207-08-9-----	Benzo(k) Fluoranthene	5	U
50-32-8-----	Benzo(a) Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd) Pyrene	5	U
53-70-3-----	Dibenzo(a,h) Anthracene	5	U
191-24-2-----	Benzo(g,h,i) Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJI

L Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0914-B5J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY635

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

108-95-2-----	Phenol	160	U
111-44-4-----	bis(2-Chloroethyl) Ether	160	U
95-57-8-----	2-Chlorophenol	160	U
541-73-1-----	1,3-Dichlorobenzene	160	U
106-46-7-----	1,4-Dichlorobenzene	160	U
100-51-6-----	Benzyl Alcohol	160	U
95-50-1-----	1,2-Dichlorobenzene	160	U
95-48-7-----	2-Methylphenol	160	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	160	U
106-44-5-----	4-Methylphenol	160	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	160	U
67-72-1-----	Hexachloroethane	160	U
98-95-3-----	Nitrobenzene	160	U
78-59-1-----	Isophorone	160	U
88-75-5-----	2-Nitrophenol	160	U
105-67-9-----	2,4-Dimethylphenol	160	U
65-85-0-----	Benzoic Acid	330	U
111-91-1-----	bis(2-Chloroethoxy)Methane	160	U
120-83-2-----	2,4-Dichlorophenol	160	U
120-82-1-----	1,2,4-Trichlorobenzene	160	U
91-20-3-----	Naphthalene	160	U
106-47-8-----	4-Chloroaniline	160	U
87-68-3-----	Hexachlorobutadiene	160	U
59-50-7-----	4-Chloro-3-Methylphenol	160	U
91-57-6-----	2-Methylnaphthalene	160	U
77-47-4-----	Hexachlorocyclopentadiene	160	U
88-06-2-----	2,4,6-Trichlorophenol	160	U
95-95-4-----	2,4,5-Trichlorophenol	330	U
91-58-7-----	2-Chloronaphthalene	160	U
88-74-4-----	2-Nitroaniline	330	U
131-11-3-----	Dimethyl Phthalate	160	U
208-96-8-----	Acenaphthylene	160	U
606-20-2-----	2,6-Dinitrotoluene	160	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJI

Lab Name: CEIMIC CORP

Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086

SAS No.: \_\_\_\_\_

SDG No.: 02SS02

Matrix: (soil/water) SOIL

Lab Sample ID: S0914-B5J

Sample wt/vol: 30.0 (g/mL) G

Lab File ID: JY635

Level: (low/med) LOW

Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N

Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL)

Date Analyzed: 09/27/99

Injection Volume: 2.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO.

COMPOUND

(ug/L or ug/Kg) UG/KG

Q

99-09-2-----3-Nitroaniline	330	U
83-32-9-----Acenaphthene	160	U
51-28-5-----2,4-Dinitrophenol	330	U
100-02-7-----4-Nitrophenol	330	U
132-64-9-----Dibenzofuran	160	U
121-14-2-----2,4-Dinitrotoluene	160	U
84-66-2-----Diethylphthalate	160	U
7005-72-3-----4-Chlorophenyl-phenylether	160	U
86-73-7-----Fluorene	160	U
100-01-6-----4-Nitroaniline	330	U
534-52-1-----4,6-Dinitro-2-Methylphenol	330	U
86-30-6-----N-Nitrosodiphenylamine (1)	160	U
101-55-3-----4-Bromophenyl-phenylether	160	U
118-74-1-----Hexachlorobenzene	160	U
87-86-5-----Pentachlorophenol	330	U
85-01-8-----Phenanthrene	160	U
120-12-7-----Anthracene	160	U
86-74-8-----Carbazole	160	U
84-74-2-----Di-n-Butylphthalate	160	U
206-44-0-----Fluoranthene	160	U
129-00-0-----Pyrene	160	U
85-68-7-----Butylbenzylphthalate	160	U
91-94-1-----3,3'-Dichlorobenzidine	160	U
56-55-3-----Benzo(a)Anthracene	160	U
218-01-9-----Chrysene	160	U
117-81-7-----bis(2-Ethylhexyl)Phthalate	160	U
117-84-0-----Di-n-Octyl Phthalate	160	U
205-99-2-----Benzo(b)Fluoranthene	160	U
207-08-9-----Benzo(k)Fluoranthene	160	U
50-32-8-----Benzo(a)Pyrene	160	U
193-39-5-----Indeno(1,2,3-cd)Pyrene	160	U
53-70-3-----Dibenzo(a,h)Anthracene	160	U
191-24-2-----Benzo(g,h,i)Perylene	160	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJQ

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-B7J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY678

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	160	U
111-44-4-----	bis(2-Chloroethyl) Ether	160	U
95-57-8-----	2-Chlorophenol	160	U
541-73-1-----	1,3-Dichlorobenzene	160	U
106-46-7-----	1,4-Dichlorobenzene	160	U
100-51-6-----	Benzyl Alcohol	160	U
95-50-1-----	1,2-Dichlorobenzene	160	U
95-48-7-----	2-Methylphenol	160	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	160	U
106-44-5-----	4-Methylphenol	160	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	160	U
67-72-1-----	Hexachloroethane	160	U
98-95-3-----	Nitrobenzene	160	U
78-59-1-----	Isophorone	160	U
88-75-5-----	2-Nitrophenol	160	U
105-67-9-----	2,4-Dimethylphenol	160	U
65-85-0-----	Benzoic Acid	330	U
111-91-1-----	bis(2-Chloroethoxy) Methane	160	U
120-83-2-----	2,4-Dichlorophenol	160	U
120-82-1-----	1,2,4-Trichlorobenzene	160	U
91-20-3-----	Naphthalene	160	U
106-47-8-----	4-Chloroaniline	160	U
87-68-3-----	Hexachlorobutadiene	160	U
59-50-7-----	4-Chloro-3-Methylphenol	160	U
91-57-6-----	2-Methylnaphthalene	160	U
77-47-4-----	Hexachlorocyclopentadiene	160	U
88-06-2-----	2,4,6-Trichlorophenol	160	U
95-95-4-----	2,4,5-Trichlorophenol	330	U
91-58-7-----	2-Chloronaphthalene	160	U
88-74-4-----	2-Nitroaniline	330	U
131-11-3-----	Dimethyl Phthalate	160	U
208-96-8-----	Acenaphthylene	160	U
606-20-2-----	2,6-Dinitrotoluene	160	U



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKJQ

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: S0922-B7J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY678

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/22/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

99-09-2-----	3-Nitroaniline	330	U
83-32-9-----	Acenaphthene	160	U
51-28-5-----	2,4-Dinitrophenol	330	U
100-02-7-----	4-Nitrophenol	330	U
132-64-9-----	Dibenzofuran	160	U
121-14-2-----	2,4-Dinitrotoluene	160	U
84-66-2-----	Diethylphthalate	160	U
7005-72-3-----	4-Chlorophenyl-phenylether	160	U
86-73-7-----	Fluorene	160	U
100-01-6-----	4-Nitroaniline	330	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	330	U
86-30-6-----	N-Nitrosodiphenylamine (1)	160	U
101-55-3-----	4-Bromophenyl-phenylether	160	U
118-74-1-----	Hexachlorobenzene	160	U
87-86-5-----	Pentachlorophenol	330	U
85-01-8-----	Phenanthrene	160	U
120-12-7-----	Anthracene	160	U
86-74-8-----	Carbazole	160	U
84-74-2-----	Di-n-Butylphthalate	160	U
206-44-0-----	Fluoranthene	160	U
129-00-0-----	Pyrene	160	U
85-68-7-----	Butylbenzylphthalate	160	U
91-94-1-----	3,3'-Dichlorobenzidine	160	U
56-55-3-----	Benzo (a) Anthracene	160	U
218-01-9-----	Chrysene	160	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	160	U
117-84-0-----	Di-n-Octyl Phthalate	160	U
205-99-2-----	Benzo (b) Fluoranthene	160	U
207-08-9-----	Benzo (k) Fluoranthene	160	U
50-32-8-----	Benzo (a) Pyrene	160	U
193-39-5-----	Indeno (1,2,3-cd) Pyrene	160	U
53-70-3-----	Dibenzo (a,h) Anthracene	160	U
191-24-2-----	Benzo (g,h,i) Perylene	160	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MS

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX023

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

108-95-2-----	Phenol	920	J
111-44-4-----	bis(2-Chloroethyl) Ether	960	J
95-57-8-----	2-Chlorophenol	970	J
541-73-1-----	1,3-Dichlorobenzene	830	J
106-46-7-----	1,4-Dichlorobenzene	790	J
100-51-6-----	Benzyl Alcohol	1300	J
95-50-1-----	1,2-Dichlorobenzene	900	J
95-48-7-----	2-Methylphenol	1100	J
108-60-1-----	2,2'-oxybis(1-Chloropropane)	1100	J
106-44-5-----	4-Methylphenol	920	J
621-64-7-----	N-Nitroso-Di-n-Propylamine	1100	J
67-72-1-----	Hexachloroethane	980	J
98-95-3-----	Nitrobenzene	990	J
78-59-1-----	Isophorone	1100	J
88-75-5-----	2-Nitrophenol	1100	J
105-67-9-----	2,4-Dimethylphenol	1400	J
65-85-0-----	Benzoic Acid	2000	J
111-91-1-----	bis(2-Chloroethoxy) Methane	1200	J
120-83-2-----	2,4-Dichlorophenol	1300	J
120-82-1-----	1,2,4-Trichlorobenzene	910	J
91-20-3-----	Naphthalene	1100	J
106-47-8-----	4-Chloroaniline	380	J
87-68-3-----	Hexachlorobutadiene	1100	J
59-50-7-----	4-Chloro-3-Methylphenol	1400	J
91-57-6-----	2-Methylnaphthalene	1100	J
77-47-4-----	Hexachlorocyclopentadiene	820	J
88-05-2-----	2,4,6-Trichlorophenol	1200	J
95-95-4-----	2,4,5-Trichlorophenol	1000	J
91-58-7-----	2-Chloronaphthalene	1100	J
88-74-4-----	2-Nitroaniline	1100	J
131-11-3-----	Dimethyl Phthalate	1300	J
208-96-8-----	Acenaphthylene	1100	J
606-20-2-----	2,6-Dinitrotoluene	1100	J

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MS

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MS

Sample wt/vol: 30.4 (g/mL) G Lab File ID: IX023

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

99-09-2-----	3-Nitroaniline	3700	U
83-32-9-----	Acenaphthene	1300	J
51-28-5-----	2,4-Dinitrophenol	750	J
100-02-7-----	4-Nitrophenol	1100	J
132-64-9-----	Dibenzofuran	1300	J
121-14-2-----	2,4-Dinitrotoluene	1000	J
84-66-2-----	Diethylphthalate	1400	J
7005-72-3-----	4-Chlorophenyl-phenylether	1500	J
86-73-7-----	Fluorene	1400	J
100-01-6-----	4-Nitroaniline	670	J
534-52-1-----	4,6-Dinitro-2-Methylphenol	1000	J
86-30-6-----	N-Nitrosodiphenylamine (1)	1500	J
101-55-3-----	4-Bromophenyl-phenylether	1700	J
118-74-1-----	Hexachlorobenzene	1700	J
87-86-5-----	Pentachlorophenol	1300	J
85-01-8-----	Phenanthrene	1500	J
120-12-7-----	Anthracene	1300	J
86-74-8-----	Carbazole	1500	J
84-74-2-----	Di-n-Butylphthalate	1400	J
206-44-0-----	Fluoranthene	1500	J
129-00-0-----	Pyrene	1500	J
85-68-7-----	Butylbenzylphthalate	1300	J
91-94-1-----	3,3'-Dichlorobenzidine	1800	U
56-55-3-----	Benzo(a) Anthracene	1500	J
218-01-9-----	Chrysene	1600	J
117-81-7-----	bis(2-Ethylhexyl) Phthalate	1500	J
117-84-0-----	Di-n-Octyl Phthalate	1100	J
205-99-2-----	Benzo(b) Fluoranthene	1300	J
207-08-9-----	Benzo(k) Fluoranthene	1700	J
50-32-8-----	Benzo(a) Pyrene	1500	J
193-39-5-----	Indeno(1,2,3-cd) Pyrene	1500	J
53-70-3-----	Dibenzo(a,h) Anthracene	1400	J
191-24-2-----	Benzo(g,h,i) Perylene	1500	J

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MSD

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MSD

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX024

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	1200	J
111-44-4-----	bis(2-Chloroethyl) Ether	1300	J
95-57-8-----	2-Chlorophenol	1300	J
541-73-1-----	1,3-Dichlorobenzene	1100	J
106-46-7-----	1,4-Dichlorobenzene	1100	J
100-51-6-----	Benzyl Alcohol	1600	J
95-50-1-----	1,2-Dichlorobenzene	1200	J
95-48-7-----	2-Methylphenol	1500	J
108-60-1-----	2,2'-oxybis(1-Chloropropane)	1500	J
106-44-5-----	4-Methylphenol	1400	J
621-64-7-----	N-Nitroso-Di-n-Propylamine	1200	J
67-72-1-----	Hexachloroethane	1100	J
98-95-3-----	Nitrobenzene	1600	J
78-59-1-----	Isophorone	1400	J
88-75-5-----	2-Nitrophenol	1300	J
105-67-9-----	2,4-Dimethylphenol	1800	J
65-85-0-----	Benzoic Acid	3000	J
111-91-1-----	bis(2-Chloroethoxy) Methane	1300	J
120-83-2-----	2,4-Dichlorophenol	1400	J
120-82-1-----	1,2,4-Trichlorobenzene	1300	J
91-20-3-----	Naphthalene	1200	J
106-47-8-----	4-Chloroaniline	1800	U
87-68-3-----	Hexachlorobutadiene	1500	J
59-50-7-----	4-Chloro-3-Methylphenol	1700	J
91-57-6-----	2-Methylnaphthalene	1300	J
77-47-4-----	Hexachlorocyclopentadiene	1300	J
88-06-2-----	2,4,6-Trichlorophenol	1800	J
95-95-4-----	2,4,5-Trichlorophenol	1800	J
91-58-7-----	2-Chloronaphthalene	1700	J
88-74-4-----	2-Nitroaniline	1700	J
131-11-3-----	Dimethyl Phthalate	1800	J
208-96-8-----	Acenaphthylene	1400	J
606-20-2-----	2,6-Dinitrotoluene	1600	J

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01MSD

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Matrix: (soil/water) SOIL Lab Sample ID: 990799-05MSD

Sample wt/vol: 30.1 (g/mL) G Lab File ID: IX024

Level: (low/med) LOW Date Received: 09/09/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/14/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 09/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

99-09-2-----	3-Nitroaniline	490	J
83-32-9-----	Acenaphthene	1800	J
51-28-5-----	2,4-Dinitrophenol	1100	J
100-02-7-----	4-Nitrophenol	2100	J
132-64-9-----	Dibenzofuran	1800	J
121-14-2-----	2,4-Dinitrotoluene	1500	J
84-66-2-----	Diethylphthalate	2100	
7005-72-3-----	4-Chlorophenyl-phenylether	1800	J
86-73-7-----	Fluorene	1900	
100-01-6-----	4-Nitroaniline	820	J
534-52-1-----	4,6-Dinitro-2-Methylphenol	1300	J
86-30-6-----	N-Nitrosodiphenylamine (1)	1800	J
101-55-3-----	4-Bromophenyl-phenylether	1900	
118-74-1-----	Hexachlorobenzene	2400	
87-86-5-----	Pentachlorophenol	1500	J
85-01-8-----	Phenanthrene	2200	
120-12-7-----	Anthracene	1800	J
86-74-8-----	Carbazole	2100	
84-74-2-----	Di-n-Butylphthalate	1900	
206-44-0-----	Fluoranthene	2300	
129-00-0-----	Pyrene	1700	J
85-68-7-----	Butylbenzylphthalate	1800	J
91-94-1-----	3,3'-Dichlorobenzidine	1800	U
56-55-3-----	Benzo(a)Anthracene	1900	
218-01-9-----	Chrysene	2200	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	1700	J
117-84-0-----	Di-n-Octyl Phthalate	1400	J
205-99-2-----	Benzo(b)Fluoranthene	2000	
207-08-9-----	Benzo(k)Fluoranthene	1800	J
50-32-8-----	Benzo(a)Pyrene	1800	J
193-39-5-----	Indeno(1,2,3-cd)Pyrene	2000	
53-70-3-----	Dibenzo(a,h)Anthracene	2100	
191-24-2-----	Benzo(g,h,i)Perylene	2000	

2C  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	100-MW-001-0	81	76	80	41	57	82	67	73	0
02	100-MW-002-0	64	64	81	24	35	73	52	56	0
03	100-MW-003-0	79	78	89	39	52	84	64	71	0
04	100-MW-004-0	85	84	85	20	28	89	55	76	0
05	100-MW-DD-01	75	75	76	18	29	77	51	70	0
06	102-MW-003-0	77	74	88	19	32	77	53	68	0
07	102-MW-004-0	83	76	95	41	56	84	69	72	0
08	SLCSDH	64	67	76	35	44	77	52	52	0
09	SBLKDH	65	66	81	26	39	72	54	58	0

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 35-114)  
 S2 (FBP) = 2-Fluorobiphenyl ( 43-116)  
 S3 (TPH) = Terphenyl-d14 ( 33-141)  
 S4 (PHL) = Phenol-d5 ( 10-100)  
 S5 (2FP) = 2-Fluorophenol ( 21-125)  
 S6 (TBP) = 2,4,6-Tribromophenol ( 25-134)  
 S7 (2CP) = 2-Chlorophenol-d4 ( 33-110) (advisory)  
 S8 (DCB) = 1,2-Dichlorobenzene-d4 ( 16-110) (advisory)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

2D  
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	100-22-DD	44 D	65 D	81 D	54 D	51 D	58 D	55 D	51 D	0
02	100-SS-01	52 D	61 D	106 D	56 D	60 D	91 D	55 D	48 D	0
03	100-SS-02	33 D	53 D	68 D	41 D	39 D	45 D	41 D	39 D	0
04	100-SS-03	53	57	108	42	44	107	44	46	0
05	100-SS-04	64	69	81	56	54	96	55	59	0
06	102-SS-01	76	84	103	71	69	97	67	69	0
07	102-SS-02	73	82	106	70	72	96	69	71	0
08	102-SS-03	80	85	91	72	68	143 *	73	68	1
09	102-SS-04	94	97	107	82	84	135 *	80	87	1
10	102-SS-05	74	81	89	62	59	108	63	60	0
11	102-SU-01	40 D	57 D	60 D	43 D	47 D	52 D	45 D	57 D	0
12	SLCSJI	68	72	111	61	63	79	62	62	0
13	SLCSJQ	81	88	101	74	77	95	74	75	0
14	100-SS-01MS	58 D	62 D	91 D	47 D	45 D	84 D	49 D	47 D	0
15	100-SS-01MSD	74 D	82 D	92 D	55 D	65 D	110 D	64 D	59 D	0
16	SBLKJI	68	78	99	69	65	59	66	68	0
17	SBLKJQ	78	80	105	75	73	66	72	77	0

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 23-120)  
 S2 (FBP) = 2-Fluorobiphenyl ( 30-115)  
 S3 (TPH) = Terphenyl-d14 ( 18-137)  
 S4 (PHL) = Phenol-d5 ( 24-113)  
 S5 (2FP) = 2-Fluorophenol ( 25-121)  
 S6 (TBP) = 2,4,6-Tribromophenol ( 19-122)  
 S7 (2CP) = 2-Chlorophenol-d4 ( 20-130) (advisory)  
 S8 (DCB) = 1,2-Dichlorobenzene-d4 ( 20-130) (advisory)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

## Matrix Spike Summary

CASE NO CTO086  
SAS NO \_\_\_\_\_

LABORATORY CEIMIC CORP  
REPORTED 10/06/99 15:10

CONTRACT TETRA TECH  
CUSTOMER PENSACOLA

FILE NAME IX022  
SPIKE IX023  
DUP SPIKE IX024

SAMPLE ID 100-SS-01  
LAB SAMP ID 990799-05  
ANALYZED 09/29/99 01:38

LEVEL LOW  
MATRIX SOIL  
UNITS ug/Kg

COMPOUND	TYPES	CONC SAMPLE	CONC SPIKED	CONC MS	% REC	CONC MSD	% REC	RPD
Phenol	A		50.00	24.30	49	32.08	64	-28
bis(2-Chloroethyl) Ether	B		50.00	25.37	51	34.98	70	-32
2-Chlorophenol	A		50.00	25.56	51	33.03	66	-25
1,3-Dichlorobenzene	B		50.00	22.00	44	30.24	60	-32
1,4-Dichlorobenzene	B		50.00	20.88	42	29.80	60	-35
Benzyl Alcohol	A		50.00	33.39	67	40.95	82	-20
1,2-Dichlorobenzene	B		50.00	23.75	48	31.22	62	-27
2-Methylphenol	A		50.00	28.06	56	39.61	79	-34
2,2'-oxybis(1-Chloropropane)			50.00	28.11	56	39.63	79	-34
4-Methylphenol	A		50.00	24.29	49	35.78	72	-38
N,N-Di-n-Propylamine	B		50.00	29.61	59	32.19	64	-8
Hexachloroethane	B		50.00	25.99	52	29.46	59	-13
Nitrobenzene	B		50.00	26.09	52	43.10	86	-49
Isophorone	B		50.00	28.12	56	37.92	76	-30
2-Nitrophenol	A		50.00	28.92	58	35.32	71	-20
2,4-Dimethylphenol	A		50.00	36.78	74	46.86	94	-24
Benzoic Acid	A		100.00	51.70	52	79.01	79	-42
bis(2-Chloroethoxy) Methane	B		50.00	31.52	63	34.07	68	-8
2,4-Dichlorophenol	A		50.00	33.27	67	37.21	74	-11
1,2,4-Trichlorobenzene	B		50.00	24.08	48	33.23	66	-32
Naphthalene	B		50.00	29.21	58	32.19	64	-10
4-Chloroaniline	B		50.00	9.94	20			
Hexachlorobutadiene	B		50.00	28.36	57	40.19	80	-35
4-Chloro-3-Methylphenol	A		50.00	36.11	72	43.85	88	-19
2-Methylnaphthalene	B		50.00	29.46	59	34.44	69	-16
Hexachlorocyclopentadiene	B		50.00	21.69	43	33.88	68	-44
2,4,6-Trichlorophenol	A		50.00	32.66	65	47.86	96	-38
2,4,5-Trichlorophenol	A		50.00	27.58	55	47.02	94	-52
2-Chloronaphthalene	B		50.00	29.29	59	43.87	88	-40
2-Nitroaniline	B		50.00	28.03	56	44.19	88	-45
Dimethyl Phthalate	B		50.00	33.12	66	46.37	93	-33
Acenaphthylene	B		50.00	28.97	58	37.36	75	-25
2,6-Dinitrotoluene	B		50.00	29.00	58	42.42	85	-38
3-Nitroaniline	B		50.00			12.97	26	
Acenaphthene	B		50.00	33.23	66	47.40	95	-35
2,4-Dinitrophenol	A		50.00	19.74	39	29.98	60	-41
4-Chlorophenol	A		50.00	28.85	58	56.25	112	-64
Dibenzofuran	B		50.00	34.24	68	47.99	96	-33
2,4-Dinitrotoluene	B		50.00	27.21	54	40.68	81	-40
Diethylphthalate	B		50.00	37.70	75	56.16	112	-39
4-Chlorophenyl-phenylether	B		50.00	39.94	80	48.77	98	-20



## Matrix Spike Summary

CASE NO CTO086  
 SAS NO \_\_\_\_\_

LABORATORY CEIMIC CORP  
 REPORTED 10/06/99 15:10

CONTRACT TETRA TECH  
 CUSTOMER PENSACOLA

COMPOUND	TYPES	CONC SAMPLE	CONC SPIKED	CONC MS	% REC	CONC MSD	% REC	RPD
Fluorene	B		50.00	35.78	72	51.43	103	-36
4-Nitroaniline	B		50.00	17.68	35	21.60	43	-20
4,6-Dinitro-2-Methylphenol	A		50.00	27.10	54	33.72	67	-22
N-Nitrosodiphenylamine (1)	B		50.00	38.83	78	48.63	97	-22
4-Bromophenyl-phenylether	B		50.00	45.11	90	50.21	100	-11
Hexachlorobenzene	B		50.00	44.04	88	63.17	126	-36
Pentachlorophenol	A		50.00	34.86	70	39.33	79	-12
Phenanthrene	B		50.00	39.50	79	56.84	114	-36
Anthracene	B		50.00	33.33	67	48.16	96	-36
Carbazole	B		50.00	39.58	79	54.31	109	-31
Di-n-Butylphthalate	B		50.00	36.78	74	51.00	102	-32
Fluoranthene	B		50.00	40.81	82	60.99	122	-40
Pyrene	B		50.00	39.58	79	43.71	87	-10
Butylbenzylphthalate	B		50.00	34.92	70	46.45	93	-28
3,3'-Dichlorobenzidine	B		50.00					
Benzo(a)Anthracene	B		50.00	39.55	79	50.08	100	-23
Chrysene	B		50.00	43.12	86	57.93	116	-29
bis(2-Ethylhexyl) Phthalate	B	38.32	50.00	39.79	3	43.71	11	-114
Di-n-Octyl Phthalate	B		50.00	29.99	60	37.50	75	-
Benzo(b)Fluoranthene	B		50.00	35.07	70	53.11	106	-4
Benzo(k)Fluoranthene	B		50.00	44.54	89	46.48	93	-4
Benzo(a)Pyrene	B		50.00	39.30	79	48.35	97	-21
Indeno(1,2,3-cd) Pyrene	B		50.00	40.24	80	52.79	106	-27
Dibenzo(a,h)Anthracene	B		50.00	37.73	75	55.22	110	-38
Benzo(g,h,i)Perylene	B		50.00	39.42	79	52.76	106	-29

Notes and summary data for this report.

% REC = ( MS - SAMPLE ) / SPIKE \* 100

RPD = ( MS - MSD ) / ( ( MS + MSD ) / 2 - SAMPLE ) \* 100

## Laboratory Control Spike Summary

LAB SAMP ID S0915-LCS6 SAMPLE ID SLCSDH  
 LAB QC ID \_\_\_\_\_ TYPE EPA  
 DATA RELEASE AUTHORIZED BY \_\_\_\_\_

FILE NAME DW976 RECEIVED \_\_\_\_\_ METHOD CLP  
 TUNE DW967 EXTRACTED 09/15/99 FRACTION BNA  
 STANDARD DW968 ANALYZED 09/22/99 20:05 INST MS4  
 BLANK DW975 VERIFIED \_\_\_\_\_ ANALYST \_\_\_\_\_  
 TAPE/POS \_\_\_\_\_ BOTTLE \_\_\_\_\_

% MOISTURE \_\_\_\_\_ pH \_\_\_\_\_ LEVEL LOW  
 (DECANTED) \_\_\_\_\_ CLEANUP \_\_\_\_\_ MATRIX WATER  
 DIL FACTOR 1.000 EXTRACT METHOD CLL UNITS ug/L

SAMPLE:  
 CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
5	108-95-2	Phenol	50.00	18.36	36.72
C25	111-44-4	bis(2-Chloroethyl) Ether	50.00	27.04	54.08
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12
C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18
C415	78-59-1	Isophorone	50.00	31.44	62.88
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58
C450	91-20-3	Naphthalene	50.00	29.16	58.32
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50
C470	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50
5	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38

## Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32
C550	83-32-9	Acenaphthene	50.00	33.32	66.64
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26
C590	86-73-7	Fluorene	50.00	34.85	69.70
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92
C640	85-01-8	Phenanthrene	50.00	36.90	73.80
C645	120-12-7	Anthracene	50.00	36.51	73.02
C646	86-74-8	Carbazole	50.00	37.84	75.68
C650	84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12
C655	206-44-0	Fluoranthene	50.00	38.99	77.98
C715	129-00-0	Pyrene	50.00	36.00	72.00
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04
C740	218-01-9	Chrysene	50.00	37.05	74.10
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	36.58	73.16
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63	71.26
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68	73.36
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82

## Laboratory Control Spike Summary

LAB SAMP ID S0914-LCS5 SAMPLE ID SLCSJI  
 LAB QC ID \_\_\_\_\_ TYPE EPA  
 DATA RELEASE AUTHORIZED BY \_\_\_\_\_

FILE NAME JY638 RECEIVED \_\_\_\_\_ METHOD CLP  
 TUNE JY630 EXTRACTED 09/14/99 FRACTION BNA  
 STANDARD JY631 ANALYZED 09/27/99 18:16 INST MS10  
 BLANK JY635 VERIFIED \_\_\_\_\_ ANALYST \_\_\_\_\_  
 TAPE/POS \_\_\_\_\_ BOTTLE \_\_\_\_\_

% MOISTURE \_\_\_\_\_ pH \_\_\_\_\_ LEVEL LOW  
 (DECANTED) \_\_\_\_\_ CLEANUP GPC MATRIX SOIL  
 DIL FACTOR 1.000 EXTRACT METHOD SONC UNITS ug/Kg

SAMPLE:  
 CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
5	108-95-2	Phenol	50.00	30.34	60.68
C225	111-44-4	bis(2-Chloroethyl) Ether	50.00	31.44	62.88
C330	95-57-8	2-Chlorophenol	50.00	30.64	61.28
C335	541-73-1	1,3-Dichlorobenzene	50.00	30.74	61.48
C340	106-46-7	1,4-Dichlorobenzene	50.00	28.47	56.94
C345	100-51-6	Benzyl Alcohol	50.00	42.98	85.96
C350	95-50-1	1,2-Dichlorobenzene	50.00	31.74	63.48
C355	95-48-7	2-Methylphenol	50.00	31.82	63.64
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	31.56	63.12
C365	106-44-5	4-Methylphenol	50.00	32.19	64.38
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	34.19	68.38
C375	67-72-1	Hexachloroethane	50.00	29.43	58.86
C410	98-95-3	Nitrobenzene	50.00	34.09	68.18
C415	78-59-1	Isophorone	50.00	35.07	70.14
C420	88-75-5	2-Nitrophenol	50.00	35.79	71.58
C425	105-67-9	2,4-Dimethylphenol	50.00	30.32	60.64
C430	65-85-0	Benzoic Acid	100.0	76.75	76.75
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	33.51	67.02
C440	120-83-2	2,4-Dichlorophenol	50.00	34.83	69.66
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	34.25	68.50
C450	91-20-3	Naphthalene	50.00	33.62	67.24
C455	106-47-8	4-Chloroaniline	50.00	18.87	37.74
C460	87-68-3	Hexachlorobutadiene	50.00	34.71	69.42
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	35.22	70.44
C470	91-57-6	2-Methylnaphthalene	50.00	36.02	72.04
C470	77-47-4	Hexachlorocyclopentadiene	50.00	30.83	61.66
C475	88-06-2	2,4,6-Trichlorophenol	50.00	34.16	68.32
C520	95-95-4	2,4,5-Trichlorophenol	50.00	34.94	69.88
C525	91-58-7	2-Chloronaphthalene	50.00	36.31	72.62
C530	88-74-4	2-Nitroaniline	50.00	35.78	71.56
C535	131-11-3	Dimethyl Phthalate	50.00	37.34	74.68

## Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C540	208-96-8	Acenaphthylene	50.00	35.40	70.80
C543	606-20-2	2,6-Dinitrotoluene	50.00	38.94	77.88
C545	99-09-2	3-Nitroaniline	50.00	30.86	61.72
C550	83-32-9	Acenaphthene	50.00	35.14	70.28
C555	51-28-5	2,4-Dinitrophenol	50.00	37.19	74.38
C560	100-02-7	4-Nitrophenol	50.00	43.22	86.44
C565	132-64-9	Dibenzofuran	50.00	35.02	70.04
C570	121-14-2	2,4-Dinitrotoluene	50.00	47.22	94.44
C580	84-66-2	Diethylphthalate	50.00	40.60	81.20
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	35.07	70.14
C590	86-73-7	Fluorene	50.00	35.06	70.12
C595	100-01-6	4-Nitroaniline	50.00	39.82	79.64
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	55.23	110.5
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	39.72	79.44
C625	101-55-3	4-Bromophenyl-phenylether	50.00	37.69	75.38
C630	118-74-1	Hexachlorobenzene	50.00	41.56	83.12
C635	87-86-5	Pentachlorophenol	50.00	15.13	30.26
C640	85-01-8	Phenanthrene	50.00	41.72	83.44
C645	120-12-7	Anthracene	50.00	41.74	83.48
C646	86-74-8	Carbazole	50.00	48.05	96.10
C650	84-74-2	Di-n-Butylphthalate	50.00	52.19	104.4
C655	206-44-0	Fluoranthene	50.00	52.31	104.6
C715	129-00-0	Pyrene	50.00	53.74	107.5
C720	85-68-7	Butylbenzylphthalate	50.00	55.74	111.5
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	33.56	67.12
C730	56-55-3	Benzo(a)Anthracene	50.00	55.28	110.6
C740	218-01-9	Chrysene	50.00	58.13	116.3
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	57.83	115.7
C760	117-84-0	Di-n-Octyl Phthalate	50.00	64.26	128.5
C765	205-99-2	Benzo(b)Fluoranthene	50.00	52.25	104.5
C770	207-08-9	Benzo(k)Fluoranthene	50.00	63.76	127.5
C775	50-32-8	Benzo(a)Pyrene	50.00	56.17	112.3
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	56.34	112.7
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	57.10	114.2
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	50.62	101.2

## Laboratory Control Spike Summary

LAB SAMP ID <u>S0922-LCS7</u>	SAMPLE ID <u>SLCSJO</u>	
LAB QC ID _____	TYPE <u>EPA</u>	
		DATA RELEASE AUTHORIZED BY _____
FILE NAME <u>JY681</u>	RECEIVED _____	METHOD <u>CLP</u>
TUNE <u>JY676</u>	EXTRACTED <u>09/22/99</u>	FRACTION <u>BNA</u>
STANDARD <u>JY677</u>	ANALYZED <u>09/29/99 13:10</u>	INST <u>MS10</u>
BLANK <u>JY678</u>	VERIFIED _____	ANALYST _____
TAPE/POS _____		BOTTLE _____
% MOISTURE _____	pH _____	LEVEL <u>LOW</u>
(DECANTED) _____	CLEANUP <u>GPC</u>	MATRIX <u>SOIL</u>
DIL FACTOR <u>1.000</u>	EXTRACT METHOD <u>SONC</u>	UNITS <u>ug/Kg</u>
SAMPLE: CONDITIONS:		

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C325	108-95-2	Phenol	50.00	36.48	72.96
C325	111-44-4	bis(2-Chloroethyl) Ether	50.00	33.94	67.88
C330	95-57-8	2-Chlorophenol	50.00	36.72	73.44
C335	541-73-1	1,3-Dichlorobenzene	50.00	35.06	70.12
C340	106-46-7	1,4-Dichlorobenzene	50.00	33.81	67.62
C345	100-51-6	Benzyl Alcohol	50.00	53.79	107.6
C350	95-50-1	1,2-Dichlorobenzene	50.00	35.47	70.94
C355	95-48-7	2-Methylphenol	50.00	37.40	74.80
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	34.30	68.60
C365	106-44-5	4-Methylphenol	50.00	39.95	79.90
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	37.68	75.36
C375	67-72-1	Hexachloroethane	50.00	34.55	69.10
C410	98-95-3	Nitrobenzene	50.00	37.12	74.24
C415	78-59-1	Isophorone	50.00	39.20	78.40
C420	88-75-5	2-Nitrophenol	50.00	42.03	84.06
C425	105-67-9	2,4-Dimethylphenol	50.00	39.59	79.18
C430	65-85-0	Benzoic Acid	100.0	64.14	64.14
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	37.88	75.76
C440	120-83-2	2,4-Dichlorophenol	50.00	41.68	83.36
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	37.99	75.98
C450	91-20-3	Naphthalene	50.00	36.89	73.78
C455	106-47-8	4-Chloroaniline	50.00	38.11	76.22
C460	87-58-3	Hexachlorobutadiene	50.00	38.42	76.84
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	44.92	89.84
C470	91-57-6	2-Methylnaphthalene	50.00	40.84	81.68
C510	77-47-4	Hexachlorocyclopentadiene	50.00	40.22	80.44
C515	88-06-2	2,4,6-Trichlorophenol	50.00	42.74	85.48
C520	95-95-4	2,4,5-Trichlorophenol	50.00	43.78	87.56
C525	91-58-7	2-Chloronaphthalene	50.00	41.35	82.70
C530	88-74-4	2-Nitroaniline	50.00	47.58	95.16
C535	131-11-3	Dimethyl Phthalate	50.00	47.25	94.50

## Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C540	208-96-8	Acenaphthylene	50.00	43.13	86.26
C543	606-20-2	2,6-Dinitrotoluene	50.00	50.24	100.5
C545	99-09-2	3-Nitroaniline	50.00	43.33	86.66
C550	83-32-9	Acenaphthene	50.00	43.16	86.32
C555	51-28-5	2,4-Dinitrophenol	50.00	38.32	76.64
C560	100-02-7	4-Nitrophenol	50.00	50.88	101.8
C565	132-64-9	Dibenzofuran	50.00	41.92	83.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	53.79	107.6
C580	84-66-2	Diethylphthalate	50.00	47.64	95.28
C595	7005-72-3	4-Chlorophenyl-phenylether	50.00	43.97	87.94
C590	86-73-7	Fluorene	50.00	45.45	90.90
C595	100-01-6	4-Nitroaniline	50.00	46.56	93.12
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	52.26	104.5
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	47.13	94.26
C625	101-55-3	4-Bromophenyl-phenylether	50.00	43.86	87.72
C630	118-74-1	Hexachlorobenzene	50.00	44.56	89.12
C635	87-86-5	Pentachlorophenol	50.00	11.78	23.56
C640	85-01-8	Phenanthrene	50.00	44.74	89.48
C645	120-12-7	Anthracene	50.00	45.24	90.48
C646	86-74-8	Carbazole	50.00	46.39	92.78
C650	84-74-2	Di-n-Butylphthalate	50.00	45.98	91.96
C655	206-44-0	Fluoranthene	50.00	46.52	93.04
C715	129-00-0	Pyrene	50.00	46.41	92.82
C720	85-68-7	Butylbenzylphthalate	50.00	50.93	101.9
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	43.86	87.72
C730	56-55-3	Benzo(a)Anthracene	50.00	48.11	96.22
C740	218-01-9	Chrysene	50.00	46.75	93.50
C745	117-81-7	bis(2-Ethylhexyl) Phthalate	50.00	50.44	100.9
C760	117-84-0	Di-n-Octyl Phthalate	50.00	53.44	106.9
C765	205-99-2	Benzo(b)Fluoranthene	50.00	46.99	93.98
C770	207-08-9	Benzo(k)Fluoranthene	50.00	50.68	101.4
C775	50-32-8	Benzo(a)Pyrene	50.00	48.21	96.42
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	47.86	95.72
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	31.75	63.50
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	48.49	96.98

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID: DW975 Lab Sample ID: S0915-B6  
 Instrument ID: MS4 Date Extracted: 09/15/99  
 Matrix: (soil/water) WATER Date Analyzed: 09/22/99  
 Level: (low/med) LOW Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	100-MW-001-0	990799-16	DW986	09/23/99
02	100-MW-002-0	990799-17	DW987	09/23/99
03	100-MW-003-0	990799-18	DW998	09/23/99
04	100-MW-004-0	990799-20	DX000	09/23/99
05	100-MW-DD-01	990799-19	DW999	09/23/99
06	102-MW-003-0	990799-11	DW985	09/23/99
07	102-MW-004-0	990799-10	DW984	09/23/99
08	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:



4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKJI

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CT0086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

Lab File ID: JY635 Lab Sample ID: S0914-B5J

Instrument ID: MS10 Date Extracted: 09/14/99

Matrix: (soil/water) SOIL Date Analyzed: 09/27/99

Level: (low/med) LOW Time Analyzed: 1640

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	100-22-DD	990799-06	JY713	09/30/99
02	100-SS-01	990799-05	IX022	09/29/99
03	100-SS-02	990799-04	JY711	09/30/99
04	100-SS-03	990799-07	IX017	09/28/99
05	100-SS-04	990799-08	IX018	09/28/99
06	102-SS-01	990799-02	JY648	09/27/99
07	102-SS-03	990799-13	IX020	09/29/99
08	102-SS-04	990799-14	IX021	09/29/99
09	102-SS-05	990799-12	IX019	09/28/99
10	102-SU-01	990799-03	IX025	09/29/99
11	SLCSJI	S0914-LCS5	JY638	09/27/99
12	100-SS-01MS	990799-05MS	IX023	09/29/99
13	100-SS-01MSD	990799-05MSD	IX024	09/29/99

COMMENTS:

4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKJQ

Client: CEIMIC CORP Contract: TETRA TECH  
Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
File ID: JY678 Lab Sample ID: S0922-B7J  
Instrument ID: MS10 Date Extracted: 09/22/99  
Matrix: (soil/water) SOIL Date Analyzed: 09/29/99  
Level: (low/med) LOW Time Analyzed: 1134

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	102-SS-02	990799-01	JY694	09/29/99
02	SLCSJQ	S0922-LCS7	JY681	09/29/99

REMARKS:

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): DW958 Date Analyzed: 09/22/99  
 Instrument ID: MS4 Time Analyzed: 1533

		IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====	=====
12 HOUR STD		548821	4.65	1854821	5.83	1063350	8.54
UPPER LIMIT		1097642	5.15	3709642	6.33	2126700	9.04
LOWER LIMIT		274410	4.15	927410	5.33	531675	8.04
=====	=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.							
=====	=====	=====	=====	=====	=====	=====	=====
01 100-MW-001-0		308700	4.64	1040187	5.81	587388	8.53
02 100-MW-002-0		346400	4.64	1178671	5.81	640489	8.53
03 102-MW-003-0		404920	4.64	1352439	5.82	747938	8.53
04 102-MW-004-0		540155	4.64	1841921	5.82	1001111	8.53
05 SLCS DH		468717	4.63	1669235	5.80	972577	8.53
06 SBLKDH		688381	4.64	2304712	5.81	1202037	8.53

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): DW968 Date Analyzed: 09/22/99  
 Instrument ID: MS4 Time Analyzed: 1533

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1851481	10.36	1392163	13.14	1330537	15.33
UPPER LIMIT	3702962	10.86	2784326	13.64	2661074	15.83
LOWER LIMIT	925740	9.86	696082	12.64	665268	14.83
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 100-MW-001-0	978129	10.36	824918	13.14	867133	15.33
02 100-MW-002-0	1023590	10.36	765396	13.14	840120	15.33
03 102-MW-003-0	1154558	10.36	756181	13.13	763712	15.33
04 102-MW-004-0	1584802	10.36	955704	13.13	990772	15.33
05 SLCSDH	1667254	10.36	1398697	13.14	1318354	15.33
06 SBLKDH	1970726	10.36	1312192	13.13	1325168	15.33

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): DW992 Date Analyzed: 09/23/99  
 Instrument ID: MS4 Time Analyzed: 1228

	IS1 (DCB)	RT #	IS2 (NPT)	RT #	IS3 (ANT)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	439195	4.62	1400076	5.78	802809	8.49
UPPER LIMIT	878390	5.12	2300152	6.28	1605618	8.99
LOWER LIMIT	219598	4.12	700038	5.28	401404	7.99
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 100-MW-003-0	644932	4.61	2133667	5.78	1185668	8.49
02 100-MW-004-0	728425	4.62	2478928	5.78	1359869	8.48
03 100-MW-DD-01	661335	4.61	2187010	5.78	1191457	8.49

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): DW992 Date Analyzed: 09/23/99  
 Instrument ID: MS4 Time Analyzed: 1223

		IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
=====		=====	=====	=====	=====	=====	=====
	12 HOUR STD	1568654	10.32	1174332	13.08	1169876	15.25
	UPPER LIMIT	3137308	10.82	2348664	13.58	2339752	15.75
	LOWER LIMIT	784327	9.82	587166	12.58	584938	14.75
=====		=====	=====	=====	=====	=====	=====
	EPA SAMPLE NO.						
=====		=====	=====	=====	=====	=====	=====
01	100-MW-003-0	2084337	10.31	1543900	13.08	1543484	15.23
02	100-MW-004-0	2249002	10.32	1604756	13.08	1721613	15.24
03	100-MW-DD-01	2073561	10.32	1612144	13.07	1674981	15.24

IS4 (PHN) = Phenanthrene-d10

I (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

a Name: CEIMIC CORP Contract: TETRA TECH

b Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02

b File ID (Standard): IX013 Date Analyzed: 09/28/99

Instrument ID: MS9 Time Analyzed: 2015

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	76145	4.87	244089	6.08	110304	8.71
UPPER LIMIT	152290	5.37	488178	6.58	220608	9.21
LOWER LIMIT	38072	4.37	122044	5.58	55152	8.21
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 100-SS-01	55942	4.86	130894	6.07	81015	8.71
02 100-SS-03	47453	4.86	138360	6.07	62809	8.70
03 100-SS-04	54632	4.86	167507	6.08	70359	8.71
04 102-SS-03	47105	4.86	151041	6.07	74039	8.71
05 102-SS-04	55280	4.86	176200	6.07	76596	8.70
06 102-SS-05	55381	4.88	164757	6.08	67602	8.71
07 102-SU-01	50437	4.86	159884	6.07	72340	8.71
08 100-SS-01MS	51660	4.87	151804	6.08	72845	8.71
09 100-SS-01MSD	40367	4.86	124739	6.07	53649 *	8.70

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): IX013 Date Analyzed: 09/28/99  
 Instrument ID: MS9 Time Analyzed: 2015

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	164927	10.40	133129	12.93	135953	14.98
UPPER LIMIT	329854	10.90	266258	13.43	271906	15.48
LOWER LIMIT	82464	9.90	66564	12.43	67976	14.48
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 100-SS-01	115324	10.39	87514	12.93	88799	14.96
02 100-SS-03	93389	10.39	80406	12.92	83249	14.96
03 100-SS-04	98800	10.39	81241	12.94	81801	14.97
04 102-SS-03	123189	10.39	137631	12.94	152826	14.97
05 102-SS-04	113359	10.39	98327	12.93	103385	14.97
06 102-SS-05	106258	10.40	88615	12.93	93690	14.97
07 102-SU-01	109379	10.39	86459	12.94	94913	14.97
08 100-SS-01MS	112515	10.40	81455	12.93	85149	14.97
09 100-SS-01MSD	91675	10.39	37843	12.93	105015	14.97

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.



## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH  
 b Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 b File ID (Standard): JY631 Date Analyzed: 09/27/99  
 Instrument ID: MS10 Time Analyzed: 1420

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	552176	5.12	1847650	6.53	1295396	9.12
UPPER LIMIT	1104352	5.62	3695300	7.03	2590792	9.62
LOWER LIMIT	276088	4.62	923825	6.03	647698	8.62
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE						
NO.						
=====	=====	=====	=====	=====	=====	=====
01 102-SS-01	583607	5.10	1937551	6.50	1330733	9.10
02 SLCSJI	586704	5.10	1894629	6.50	1269879	9.10
03 SBLKJI	643285	5.11	2143523	6.51	1412961	9.10

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

ab Name: CEIMIC CORP Contract: TETRA TECH  
 ab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 ab File ID (Standard): JY631 Date Analyzed: 09/27/99  
 nstrument ID: MS10 Time Analyzed: 1420

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	2627600	10.87	2649852	13.81	2933915	16.45
UPPER LIMIT	5255200	11.37	5299704	14.31	5867830	16.95
LOWER LIMIT	1313800	10.37	1324926	13.31	1466958	15.95
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 102-SS-01	2769147	10.87	2603633	13.79	2566974	16.43
02 SLCSJI	2445580	10.87	2306670	13.80	2308295	16.43
03 SBLKJI	2849869	10.87	2634113	13.79	2828309	16.42

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): JY677 Date Analyzed: 09/29/99  
 Instrument ID: MS10 Time Analyzed: 1036

	IS1 (DCB)	RT #	IS2 (NPT)	RT #	IS3 (ANT)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	553802	5.08	1397901	6.47	832392	9.08
UPPER LIMIT	1107604	5.58	2795802	6.97	1664784	9.58
LOWER LIMIT	276901	4.58	698950	5.97	416196	8.58
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 102-SS-02	709023	5.04	2347310	6.42	1522739	9.06
02 SLCSJQ	692983	5.05	2335472	6.43	1533407	9.06
03 SBLKJQ	523580	5.10	1803460	6.50	1232212	9.10

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

6C  
SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

b Name: CEIMIC CORP Contract: TETRA TECH  
 b Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 b File ID (Standard): JY677 Date Analyzed: 09/29/99  
 Instrument ID: MS10 Time Analyzed: 1036

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1535833	10.84	1535231	13.75	1555437	16.37
UPPER LIMIT	3071666	11.34	3070462	14.25	3110874	16.87
LOWER LIMIT	767916	10.34	767616	13.25	777718	15.87
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 102-SS-02	3067450	10.83	2625724	13.74	2478365	16.35
02 SLCSJQ	3186286 *	10.83	3043291	13.73	2887521	16.35
03 SBLKJQ	2385773	10.86	2373933	13.77	2394939	16.40

IS4 (PHN) = Phenanthrene-d10  
 IS5 (CRY) = Chrysene-d12  
 IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.  
 AREA LOWER LIMIT = - 50% of internal standard area.  
 RT UPPER LIMIT = +0.50 minutes of internal standard RT.  
 RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.  
 \* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Name: CEIMIC CORP Contract: TETRA TECH  
 Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 File ID (Standard): JY702 Date Analyzed: 09/30/99  
 Instrument ID: MS10 Time Analyzed: 1023

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	413890	5.11	1403401	6.51	957464	9.08
UPPER LIMIT	827780	5.61	2806802	7.01	1914928	9.58
LOWER LIMIT	206945	4.61	701700	6.01	478732	8.58
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 100-22-DD	685960	5.05	2255938	6.43	1520361	9.04
02 100-SS-02	772171	5.04	2567906	6.41	1648457	9.03

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 02SS02  
 Lab File ID (Standard): JY702 Date Analyzed: 09/30/99  
 Instrument ID: MS10 Time Analyzed: 1023

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1977231	10.83	1848295	13.76	1707054	16.36
UPPER LIMIT	3954462	11.33	3696590	14.26	3414108	16.86
LOWER LIMIT	988616	10.33	924148	13.26	853527	15.86
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 100-22-DD	3098981	10.81	3113579	13.71	2994598	16.28
02 100-SS-02	3251346	10.81	2822447	13.70	2671373	16.28

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## PESTICIDE ANALYSES

CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Chloroethene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	107	75 - 125

Reported by: 

Approved by: 



CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

## **VOLATILE ANALYSES**

CEMTEC CORPORATION  
Sample Receiving Checklist

LIMS # 990807

Cooler Number: 1-3

Client: Tetra Tech

Number of Coolers: 3

Project: NAS Pensacola

Date Received: 9/11/99

- A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/11/99
1. Have designated person initial here to acknowledge receipt of cooler: AS (date): 9/11/99
2. Did cooler come with a shipping slip (airbill, etc.)? ☒ YES ☐ NO  
If YES, enter carrier name & airbill number here: Fedex  
510789127451
3. Were custody seals on outside of cooler? ☐ YES ☐ NO  
How many & where: 1, front seal date: 9/10/99 seal name: ENCO
4. Were custody seals unbroken and intact at the date and time of arrival ☒ YES ☐ NO
5. Did you screen samples for radioactivity using a Geiger Counter? ☒ YES ☐ NO Reading: ND
6. Chain of Custody #: 0464
7. Were custody papers sealed in a plastic bag & taped inside to the lid? ☒ YES ☐ NO
8. Were custody papers filled out properly (ink, signed, etc.)? ☒ YES ☐ NO
9. Did you sign custody papers in the appropriate place? ☒ YES ☐ NO
10. Was project identifiable from custody papers? ☐ YES ☒ NO
11. If required, was enough ice used? ☒ YES ☐ NO Cooler Temperature: 4°C Type of ice: blue
- B. LOG-IN PHASE: Date samples were logged-in: 9/13/99  
by (print): Amy St. John (sign): Amy St. John
12. Describe type of packing in cooler: \_\_\_\_\_
13. Were all bottles sealed in separate plastic bags? ☒ YES ☐ NO
14. Did all bottles arrive unbroken and were labels in good condition? ☒ YES ☐ NO
15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? ☒ YES ☐ NO
16. Did all bottle labels agree with custody papers? ☐ YES ☒ NO
17. Were correct containers used for the tests indicated? ☒ YES ☐ NO
18. Were samples received at the correct pH? ☒ YES ☐ NO
19. Was a sufficient amount of sample sent for tests indicated? ☒ YES ☐ NO
20. Were bubbles absent in VOA samples? If NO, list by sample#: FB091099-01 & TB091099-01 YES NO  
990807-01 990807-03
21. Laboratory labelling verified by: (Initials): \_\_\_\_\_ (date): 1/1

12

990807

0464

Project #		Project Name		Cooler Temp.		Analyses												Remarks	
CTO 0486		NAS Pensacola OLF Brown		4°C		TCL VOC	pH	TCL SVOC	pH	Pest/PAHs	pH	THAL Microbials	pH	Cyanide	pH	pH	pH		pH
Samplers (please print)		Cooler #																	
Lab ID	Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers													
16	9/10	1245	G	100-mw-001-01	W	8	X		X		X		X		X				
17	9/10	1420	G	100-mw-002-01	W	8	X		X		X		X		X				
18	9/10	1130	G	100-mw-003-01	W	8	X		X		X		X		X				
19	9/10	-	G	100-mw-DD-01	W	8	X		X		X		X		X				Dup.
20	9/10	0920	G	100-mw-004-01	W	8	X		X		X		X		X				
01	9/10	1210	G	40 FB 091099-01	W	8	X		X		X		X		X				Field Blank
02	9/10	1435	G	ER 091099-01	W	8	X		X		X		X		X				Equiv. Rinse
03	9/10	0900	G	TB 091099-01	W	2	X												Tip Blank
Ceimic Project #				Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time			
990807				Mr. Lahl				9/10/99 1900				Fred Ex							
Storage Location				Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time			
(12)																			
Remarks:				Relinquished by (signature)				Date/Time				Received by Ceimic (signature)				Date/Time			
												Amy St. John							

## CHAIN OF CUSTODY

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

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October 8, 1999

Ms. Lee Leck  
Tetra Tech NUS  
Foster Plaza VII  
661 Andersen Dr.  
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 091099. The 3 aqueous samples were taken from the field on September 10, 1999 and received at Ceimic Corporation on September 11, 1999.

These samples are reported under Ceimic Project Number 990807, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,



Neil Pothier, Ph.D  
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen  
Tetra Tech NUS  
1311 Executive Center Dr.  
Ellis Bldg.  
Suite 220  
Tallahassee, FL 32301

Mr. Arnold Lamb  
Tetra Tech NUS  
794 S. Military Trail  
Deerfield Beach, FL 33442

TOTAL METALS AND CYANIDE  
-7-  
LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL  
Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099  
Solid LCS Source:  
Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	8R	True	Found	C	Limits	8R	
Antimony	500.0	453.52	90.7						
Arsenic	200.0	181.71	90.9						
Cadmium	100.0	85.84	85.8						
Lead	200.0	175.02	87.5						
Selenium	200.0	185.06	92.5						
Silver	1250.0	1138.50	91.1						
Thallium	200.0	175.64	87.8						

## TOTAL METALS AND CYANIDE

-7-

## LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	SR	True	Found	C	Limits	SR
Aluminum	10000.0	9660.60	96.6					
Barium	10000.0	8989.20	89.9					
Beryllium	250.0	241.13	96.5					
Calcium	25000.0	24334.00	97.3					
Chromium	1000.0	923.29	92.3					
Cobalt	2500.0	2266.90	90.7					
Copper	1250.0	1104.50	88.4					
Iron	5000.0	4833.20	96.7					
Magnesium	25000.0	24312.00	97.2					
Manganese	2500.0	2280.20	91.2					
Nickel	2500.0	2234.90	89.4					
Potassium	25000.0	22620.00	90.5					
Sodium	25000.0	24776.00	99.1					
Vanadium	2500.0	2377.40	95.1					
Zinc	2500.0	2240.30	89.6					
Cyanide	800	77.99	97.5					



TOTAL METALS AND CYANIDE  
- 3 -  
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL  
Lab Code: CEIMIC Case No.: 990807 SAS No.:            SDG NO.: 091099  
Preparation Blank Matrix (soil/water): WATER  
Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	C

## TOTAL METALS AND CYANIDE

- 3 -  
BLANKSContract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099Preparation Blank Matrix (soil/water): WATERPreparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	2.600	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	3.600	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.430	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	2.700	U	P
Mercury			0.14	U	0.14	U	0.14	U	0.140	U	AV
Selenium	3.3	B	2.1	U	2.1	U	2.8	B	2.100	U	P
Silver	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	4.400	U	P

TOTAL METALS AND CYANIDE

- 3 -  
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL  
Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099  
Preparation Blank Matrix (soil/water): WATER  
Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
		1	C	2	C	3	C			
Aluminum		41.0	U	41.0	U	42.3	B	141.000	B	P
Barium		16.4	B	12.4	B	17.4	B	9.910	B	P
Beryllium		0.4	U	-0.4	B	0.4	U	0.430	B	P
Calcium		-127.3	B	170.1	B	-254.8	B	495.000	B	P
Chromium		-10.9	B	-11.8	B	-9.9	B	5.710	B	P
Cobalt		7.1	B	5.7	B	8.5	B	15.600	B	P
Copper		-4.7	B	-6.6	B	-4.7	B	13.000	B	P
Iron		40.0	U	40.0	U	40.0	U	40.000	U	P
Magnesium		119.0	U	133.7	B	119.0	U	551.000	B	P
Manganese		3.0	U	3.0	U	3.0	U	3.000	U	P
Nickel		-24.4	B	-31.9	B	-23.9	B	-11.960	B	P
Potassium		222.0	U	314.8	B	286.8	B	620.000	B	P
Sodium		57.0	U	133.2	B	57.0	U	570.000	B	P
Vanadium		5.3	B	2.8	U	2.8	U	18.500	B	P
Zinc		5.5	U	5.5	U	5.5	U	16.800	B	P

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Contract: Outlying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099Matrix (soil/water): WATERLab Sample ID: 990807-02Level (low/med): LOWDate Received: 09/11/99% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.5	U		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	222	U		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	293	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	18.5	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments:

Approved: Donald Tortulli

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099Matrix (soil/water): WATERLab Sample ID: 990807-01Level (low/med): LOWDate Received: 09/11/99% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	12.9	B		P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	246	B		P
7782-49-2	Selenium	2.3	B		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	3.8	B		P
7440-66-6	Zinc	14.0	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments:

Approved: David Tortorella

CEIMIC

TOTAL METALS AND CYANIDE  
- Cover Page -  
INORGANIC ANALYSIS DATA PACKAGE

Contract: Outlaying Landing Field Bronson Pensacola, FL      SDG No.: 091099  
Lab Code: CEIMIC      Case No.: 990807      SAS No.:  
SOW No.: ILM04.0

<u>Sample No.</u>	<u>Lab Sample ID.</u>
<u>FB091099-01</u>	<u>990807-01</u>
<u>ER091099-01</u>	<u>990807-02</u>

Were ICP interelement corrections applied?      Yes/No YES  
Were ICP background corrections applied?      Yes/No YES  
If yes-were raw data generated before  
application of background corrections?      Yes/No NO

Comments:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Donald Tortorelli      Name: Donald Tortorelli  
Date: 10/1/97      Title: INORGANIC LAB MGR

## METAL ANALYSES

CEIMIC CORPORATION

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990807

Analytical Method: 3082j

Surr. Sol. ID: PW 9909 FS B

Prep Date/Time: 09/15/95

Client: Extra Tech Nuy

Extraction Method: sep funnel

MS Sol. ID: PW990701B

Analysis: PCB only

Blank ID: P00915B4

LCS ID: PO06115 LC'S4

Add'l Spike ID:           

Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION							INIT & DATE		COMMENTS	
										GC/MS			GC/LC				TRANSFER			
Client ID	Case ID	Vol/ Wt (ml/g)	Surr Vol (μl)	MS Vol (μl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
—	P00915B4	1000	1000	—					10ml								1ml	T	3/26/99	
—	P00915B3a	↓	↓	—					↓								↓	↓	↓	
—	LCS4	↓	↓	100					↓								↓	↓	↓	
FB091099-0	P0807-01	↓	↓	—					↓								↓	↓	↓	
FB091099-0	02	↓	↓	—					↓								↓	↓	↓	
<div>gm 07/15/99</div>																				

\*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N020463

Sodium Sulfate Lot #:                     

Reagents IDs:

Final Solvent ID: —

Supervisor Init: MA

Container Lot #:           —          

Surrogate Added By: hjn

Preparat v:                     

Witnessed By: JFM

<input type="checkbox"/>	GPC	X	Y	Z
<input type="checkbox"/>	Silica			
<input type="checkbox"/>	Florisil			

Lot #:

**Cominent Codes:**

$$RE = R_{\text{extract}}$$

AL 2nd Aliquot



## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Prep Date/Time: 06/15/57

Analysis: *Rest*

Matrix: 99/11/11

\*All volumes are in milliliters (ml) unless otherwise noted.

**Comment Codes:**

$$RE = R_{\text{extract}}$$

AL 2nd Aliquot

Lot #:

**LABORATORY CONTROL SUMMARY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
 by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS4

Matrix: Aqueous

CEMIS Project: 990807

Date Sample Analyzed: 09/27/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%) <sup>*</sup>
Aroclor-1016	5.0	5.2	104	30 - 150
Aroclor-1260	5.0	5.3	106	47 - 127

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%) <sup>*</sup>
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

<sup>\*</sup> These limits are provided for advisory purposes.

Reported by: AS

Approved by: R

**METHOD BLANK**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: RL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: ER091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-02  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/27/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	65	34 - 129

\* These limits are provided for advisory purposes.

Revised by: AS

Approved by: HL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: FB091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-01  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/27/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: HL

## PCB ANALYSES

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Analytical Method: 8081 A

Prep Date/Time: 09, 15/57

Extraction Method: Sep. funnel

MS Sol. ID: PW 79070.B

Analysis: Rest

LCS ID: 700915 LCS1

Add'l Spike ID:                     

Matrix: 99/11/11

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Chemical ID	Vol/Wt (ml/g)	Surr Vol (μl)	MS Vol (μl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/MS	GC/LC	
FBC91049-0	7080701	100ml	1ml	-					10ml								1ml			
ER091049-0	02	↓	↓	-					↓								↓			
<div style="position: relative; height: 400px;"> <div style="position: absolute; top: 0; left: 0; right: 0; bottom: 0; border: 1px solid black; transform: rotate(180deg);"></div> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%); font-size: 2em;">             1M 09/15/99           </div> </div>																				

\*All volumes are in milliliters (ml) unless otherwise noted.

Sodium Sulfate Lot #: 1

Reagents IDs:

Supervisor Init: JA

Surrogate Added By: *JM*

Witnessed By:                     

<input type="checkbox"/>	GPC	X	Y	Z
<input type="checkbox"/>	Silica			
<input type="checkbox"/>	Florisil			

Lot #:

Comment Codes:

$$RE = R_{\text{extmcl}}$$

AL 2nd Aliquot

**LABORATORY CONTROL SUMMARY**  
**ORGANOCHLORINE PESTICIDES**  
 by SW846 Method 8080

Client: Tetra Tech NUS  
 Blank Spike ID: P0915-LCS1  
 Matrix: Aqueous

Ceimic Project: 990807  
 Date Sample Analyzed: 09/29/99  
 Date Sample Prepared: 09/15/99  
 Associated Method Blank: P0915-B1  
 Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
alpha-BHC	0.50	0.39	78	49 - 150
beta-BHC	0.50	0.39	78	60 - 135
delta-BHC	0.50	0.40	80	32 - 140
gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
4,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.35	70	69 - 137
4,4'-DDD	0.50	0.43	86	49 - 141
Endosulfan Sulfate	0.50	0.44	88	51 - 144
DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: PL



**METHOD BLANK**  
**ORGANOCHLORINE PESTICIDES**  
**by SW846 Method 8080**

Client: Tetra Tech NUS

Blank ID: P0915-B1

Matrix: Aqueous

Chemical Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: pl

**TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080**

Client: Tetra Tech NUS  
Client Sample ID: ER091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-02  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 10/04/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	60	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: HL

**TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080**

Client: Tetra Tech NUS  
Client Sample ID: FB091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-01  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 10/04/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl -	55	34 - 129

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: HL

## **PESTICIDE ANALYSES**

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Lab File ID (Standard): DW992 Date Analyzed: 09/23/99  
 Instrument ID: MS4 Time Analyzed: 1228

	IS4 (PHN)		IS5 (CRY)		IS6 (PRY)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1568654	10.32	1174332	13.08	1169876	15.25
UPPER LIMIT	3137308	10.82	2348664	13.58	2339752	15.75
LOWER LIMIT	784327	9.82	587166	12.58	584938	14.75
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 ER091099-01	2180804	10.32	1422919	13.08	1395791	15.24
02 FB091099-01	3276900 *	10.32	2598391 *	13.08	2742870 *	15.24

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Lab File ID (Standard): DW992 Date Analyzed: 09/23/99  
 Instrument ID: MS4 Time Analyzed: 1228

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	439195	4.62	1400076	5.78	802809	8.49
UPPER LIMIT	878390	5.12	2800152	6.28	1605618	8.99
LOWER LIMIT	219598	4.12	700038	5.28	401404	7.99
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 ER091099-01	697849	4.62	2415481	5.79	1331022	8.49
02 FB091099-01	964450 *	4.62	3435530 *	5.79	1932269 *	8.49

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Lab File ID (Standard): DW968 Date Analyzed: 09/22/99  
 Instrument ID: MS4 Time Analyzed: 1533

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1851481	10.36	1392163	13.14	1330537	15.33
UPPER LIMIT	3702962	10.86	2784326	13.64	2661074	15.83
LOWER LIMIT	925740	9.86	696082	12.64	665268	14.83
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SLCSDH	1667254	10.36	1398697	13.14	1318354	15.33
02 SBLKDH	1970726	10.36	1312192	13.13	1325168	15.33

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORPContract: TETRA TECHLab Code: CEIMIC Case No.: CTO086

SAS No.: \_\_\_\_\_

SDG No.: 091099Lab File ID (Standard): DW968Date Analyzed: 09/22/99Instrument ID: MS4Time Analyzed: 1533

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	548821	4.65	1854821	5.83	1063350	8.54
UPPER LIMIT	1097642	5.15	3709642	6.33	2126700	9.04
LOWER LIMIT	274410	4.15	927410	5.33	531675	8.04
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SLCSDH	468717	4.63	1669235	5.80	972577	8.53
02 SBLKDH	688381	4.64	2304712	5.81	1202037	8.53

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.



4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH  
Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
Lab File ID: DW975 Lab Sample ID: S0915-B6  
Instrument ID: MS4 Date Extracted: 09/15/99  
Matrix: (soil/water) WATER Date Analyzed: 09/22/99  
Level: (low/med) LOW Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	=====	=====	=====	=====
01	ER091099-01	990807-02	DW997	09/23/99
02	FB091099-01	990807-01	DW996	09/23/99
03	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

## Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32
C550	83-32-9	Acenaphthene	50.00	33.32	66.64
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26
C590	86-73-7	Fluorene	50.00	34.85	69.70
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92
C640	85-01-8	Phenanthrene	50.00	36.90	73.80
C645	120-12-7	Anthracene	50.00	36.51	73.02
C646	86-74-8	Carbazole	50.00	37.84	75.68
C650	84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12
C655	206-44-0	Fluoranthene	50.00	38.99	77.98
C715	129-00-0	Pyrene	50.00	36.00	72.00
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04
C740	218-01-9	Chrysene	50.00	37.05	74.10
C745	117-81-7	bis(2-Ethylhexyl) Phthalate	50.00	36.58	73.16
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46
C765	205-99-2	Benzo(b) Fluoranthene	50.00	35.63	71.26
C770	207-08-9	Benzo(k) Fluoranthene	50.00	39.94	79.88
C775	50-32-8	Benzo(a) Pyrene	50.00	36.68	73.36
C780	193-39-5	Indeno(1,2,3-cd) Pyrene	50.00	33.85	67.70
C785	53-70-3	Dibenzo(a,h) Anthracene	50.00	34.15	68.30
C790	191-24-2	Benzo(g,h,i) Perylene	50.00	33.41	66.82

## Laboratory Control Spike Summary

LAB SAMP ID S0915-LCS6 SAMPLE ID SLCSDH  
 LAB QC ID \_\_\_\_\_ TYPE EPA DATA RELEASE AUTHORIZED BY \_\_\_\_\_

FILE NAME DW976 RECEIVED \_\_\_\_\_ METHOD CLP  
 TUNE DW967 EXTRACTED 09/15/99 FRACTION BNA  
 STANDARD DW968 ANALYZED 09/22/99 20:05 INST MS4  
 BLANK DW975 VERIFIED \_\_\_\_\_ ANALYST \_\_\_\_\_  
 TAPE/POS \_\_\_\_\_ BOTTLE \_\_\_\_\_

% MOISTURE \_\_\_\_\_ pH \_\_\_\_\_ LEVEL LOW  
 (DECANTED) \_\_\_\_\_ CLEANUP \_\_\_\_\_ MATRIX WATER  
 DIL FACTOR 1.000 EXTRACT METHOD CLL UNITS ug/L

SAMPLE:  
 CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C315	108-95-2	Phenol	50.00	18.36	36.72
C325	111-44-4	bis(2-Chloroethyl) Ether	50.00	27.04	54.08
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12
C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18
C415	78-59-1	Isophorone	50.00	31.44	62.88
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30
C430	65-85-0	Benzoiç Acid	100.0	29.25	29.25
C435	111-91-1	bis(2-Chloroethoxy)Methane	50.00	32.44	64.88
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58
C450	91-20-3	Naphthalene	50.00	29.16	58.32
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38

2C  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	ER091099-01	69	67	81	20	31	69	53	65	0
02	FB091099-01	79	74	77	28	40	79	61	74	0
03	SLCSDH	64	67	76	35	44	77	52	52	0
04	SBLKDH	65	66	81	26	39	72	54	58	0

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 35-114)  
 S2 (FBP) = 2-Fluorobiphenyl ( 43-116)  
 S3 (TPH) = Terphenyl-d14 ( 33-141)  
 S4 (PHL) = Phenol-d5 ( 10-100)  
 S5 (2FP) = 2-Fluorophenol ( 21-125)  
 S6 (TBP) = 2,4,6-Tribromophenol ( 25-134)  
 S7 (2CP) = 2-Chlorophenol-d4 ( 33-110) (advisory)  
 S8 (DCB) = 1,2-Dichlorobenzene-d4 ( 16-110) (advisory)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	1	J
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	2	J
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

108-95-2-----Phenol	5	U
111-44-4-----bis(2-Chloroethyl) Ether	5	U
95-57-8-----2-Chlorophenol	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
100-51-6-----Benzyl Alcohol	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
95-48-7-----2-Methylphenol	5	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----4-Methylphenol	5	U
621-64-7-----N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----Hexachloroethane	5	U
98-95-3-----Nitrobenzene	5	U
78-59-1-----Isophorone	5	U
88-75-5-----2-Nitrophenol	5	U
105-67-9-----2,4-Dimethylphenol	5	U
65-85-0-----Benzoic Acid	5	U
111-91-1-----bis(2-Chloroethoxy)Methane	5	U
120-83-2-----2,4-Dichlorophenol	5	U
120-82-1-----1,2,4-Trichlorobenzene	5	U
91-20-3-----Naphthalene	5	U
106-47-8-----4-Chloroaniline	5	U
87-68-3-----Hexachlorobutadiene	5	U
59-50-7-----4-Chloro-3-Methylphenol	5	U
91-57-6-----2-Methylnaphthalene	5	U
77-47-4-----Hexachlorocyclopentadiene	5	U
88-06-2-----2,4,6-Trichlorophenol	5	U
95-95-4-----2,4,5-Trichlorophenol	10	U
91-58-7-----2-Chloronaphthalene	5	U
88-74-4-----2-Nitroaniline	10	U
131-11-3-----Dimethyl Phthalate	5	U
208-96-8-----Acenaphthylene	5	U
606-20-2-----2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

99-09-2-----	3-Nitroaniline	34	
83-32-9-----	Acenaphthene	33	
51-28-5-----	2,4-Dinitrophenol	33	
100-02-7-----	4-Nitrophenol	22	
132-64-9-----	Dibenzofuran	34	
121-14-2-----	2,4-Dinitrotoluene	38	
84-66-2-----	Diethylphthalate	34	
7005-72-3-----	4-Chlorophenyl-phenylether	35	
86-73-7-----	Fluorene	35	
100-01-6-----	4-Nitroaniline	35	
534-52-1-----	4,6-Dinitro-2-Methylphenol	39	
86-30-6-----	N-Nitrosodiphenylamine (1)	37	
101-55-3-----	4-Bromophenyl-phenylether	37	
118-74-1-----	Hexachlorobenzene	38	
87-86-5-----	Pentachlorophenol	33	
85-01-8-----	Phenanthrene	37	
120-12-7-----	Anthracene	37	
86-74-8-----	Carbazole	38	
84-74-2-----	Di-n-Butylphthalate	39	B
206-44-0-----	Fluoranthene	39	
129-00-0-----	Pyrene	36	
85-68-7-----	Butylbenzylphthalate	36	
91-94-1-----	3,3'-Dichlorobenzidine	30	
56-55-3-----	Benzo(a)Anthracene	38	
218-01-9-----	Chrysene	37	
117-81-7-----	bis(2-Ethylhexyl)Phthalate	37	B
117-84-0-----	Di-n-Octyl Phthalate	38	
205-99-2-----	Benzo(b)Fluoranthene	36	
207-08-9-----	Benzo(k)Fluoranthene	40	
50-32-8-----	Benzo(a)Pyrene	37	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	34	
53-70-3-----	Dibenzo(a,h)Anthracene	34	
191-24-2-----	Benzo(g,h,i)Perylene	33	

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	18	
111-44-4-----	bis(2-Chloroethyl) Ether	27	
95-57-8-----	2-Chlorophenol	27	
541-73-1-----	1,3-Dichlorobenzene	25	
106-46-7-----	1,4-Dichlorobenzene	24	
100-51-6-----	Benzyl Alcohol	32	
95-50-1-----	1,2-Dichlorobenzene	25	
95-48-7-----	2-Methylphenol	27	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	29	
106-44-5-----	4-Methylphenol	28	
621-64-7-----	N-Nitroso-Di-n-Propylamine	29	
67-72-1-----	Hexachloroethane	24	
98-95-3-----	Nitrobenzene	30	
78-59-1-----	Isophorone	31	
88-75-5-----	2-Nitrophenol	32	
105-67-9-----	2,4-Dimethylphenol	22	
65-85-0-----	Benzoic Acid	29	
111-91-1-----	bis(2-Chloroethoxy) Methane	32	
120-83-2-----	2,4-Dichlorophenol	31	
120-82-1-----	1,2,4-Trichlorobenzene	27	
91-20-3-----	Naphthalene	29	
106-47-8-----	4-Chloroaniline	26	
87-68-3-----	Hexachlorobutadiene	28	
59-50-7-----	4-Chloro-3-Methylphenol	34	
91-57-6-----	2-Methylnaphthalene	32	
77-47-4-----	Hexachlorocyclopentadiene	25	
88-06-2-----	2,4,6-Trichlorophenol	35	
95-95-4-----	2,4,5-Trichlorophenol	34	
91-58-7-----	2-Chloronaphthalene	32	
88-74-4-----	2-Nitroaniline	35	
131-11-3-----	Dimethyl Phthalate	34	
208-96-8-----	Acenaphthylene	33	
606-20-2-----	2,6-Dinitrotoluene	37	



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1	BJ
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy) Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

99-09-2-----3-Nitroaniline	10	U
83-32-9-----Acenaphthene	5	U
51-28-5-----2,4-Dinitrophenol	10	U
100-02-7-----4-Nitrophenol	10	U
132-64-9-----Dibenzofuran	5	U
121-14-2-----2,4-Dinitrotoluene	5	U
84-66-2-----Diethylphthalate	5	U
7005-72-3-----4-Chlorophenyl-phenylether	5	U
86-73-7-----Fluorene	5	U
100-01-6-----4-Nitroaniline	10	U
534-52-1-----4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----N-Nitrosodiphenylamine (1)	5	U
101-55-3-----4-Bromophenyl-phenylether	5	U
118-74-1-----Hexachlorobenzene	5	U
87-86-5-----Pentachlorophenol	10	U
85-01-8-----Phenanthrene	5	U
120-12-7-----Anthracene	5	U
86-74-8-----Carbazole	5	U
84-74-2-----Di-n-Butylphthalate	5	U
206-44-0-----Fluoranthene	5	U
129-00-0-----Pyrene	5	U
85-68-7-----Butylbenzylphthalate	5	U
91-94-1-----3,3'-Dichlorobenzidine	5	U
56-55-3-----Benzo(a)Anthracene	5	U
218-01-9-----Chrysene	5	U
117-81-7-----bis(2-Ethylhexyl) Phthalate	5	U
117-84-0-----Di-n-Octyl Phthalate	5	U
205-99-2-----Benzo(b) Fluoranthene	5	U
207-08-9-----Benzo(k) Fluoranthene	5	U
50-32-8-----Benzo(a) Pyrene	5	U
193-39-5-----Indeno(1,2,3-cd) Pyrene	5	U
53-70-3-----Dibenzo(a,h) Anthracene	5	U
191-24-2-----Benzo(g,h,i) Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy) Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

## SEMIVOLATILE ORGANIC ANALYSES

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank Spike ID: V150923-LCS

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Associated Method Blank: V150923-B1

Concentration:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	100	68 - 124
Trichloroethene	5	5	97	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	94	71 - 132
Chlorobenzene	5	5	98	77 - 128

\*See limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	115	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	110	75 - 125

Reported by: 

Approved by: 

CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
omethane	ND	1
l Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	10	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 



CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	2	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Methylene Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	95	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	109	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: 

Approved by: 

CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	8	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	107	75 - 125

Reported by: 

Approved by: 

CEIMIC  
Corporation

*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank ID: V150923-B1

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Approved by: 

**VOLATILE ANALYSES**

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

## Corrective Action Form

Name: Amy St. John

Date: 9.13.99

Out of Control Situation: Bubbles present in VOA samples  
(describe what happened, when, where and how, and who discovered the problem)

A bubble was present in one of the duplicate vials for sample ID FB091099-01 & ID TB091099-01.

Client(s): Tetra Tech

Samples Affected: Client ID: <sup>AS</sup> FB091099-01 & TB091099-01  
(reference both Ceimic and client IDs)

Ceimic ID: 990807-01 & 990807-02

Action Taken:

(if client contacted, reference client contact name and date)

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Proof of Return to Control:

Supervisor: \_\_\_\_\_

QA/QC Officer: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Corrective Action Tracking # \_\_\_\_\_

QAT0237

Page # \_\_\_\_\_



**CEMTEC CORPORATION**  
Sample Receiving Checklist

LIMS # 990807

Cooler Number: 1-3

Client: Tetra Tech

Number of Coolers: 3

Project: NAS Pensacola

Date Received: 9/11/99

- A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 9/11/99
1. Have designated person initial here to acknowledge receipt of cooler: AS (Date): 9/11/99
  2. Did cooler come with a shipping slip (airbill, etc.)? (YES) NO  
If YES, enter carrier name & airbill number here: Fedex  
310789127451
  3. Were custody seals on outside of cooler? (YES) NO  
How many & where: 1, front seal date: 9/10/99 seal name: Enco
  4. Were custody seals unbroken and intact at the date and time of arrival (YES) NO
  5. Did you screen samples for radioactivity using a Geiger Counter? (YES) NO Reading: ND
  6. Chain of Custody #: 0464
  7. Were custody papers sealed in a plastic bag & taped inside to the lid? (YES) NO
  8. Were custody papers filled out properly (ink, signed, etc.)? (YES) NO
  9. Did you sign custody papers in the appropriate place? (YES) NO
  10. Was project identifiable from custody papers? (YES) NO
  11. If required, was enough ice used? (YES) NO Cooler Temperature: 4°C Type of ice: blue
- B. LOG-IN PHASE: Date samples were logged-in: 9/13/99  
by (print): Amy St. John (signature): Amy St. John
12. Describe type of packing in cooler: \_\_\_\_\_
  13. Were all bottles sealed in separate plastic bags? (YES) NO
  14. Did all bottles arrive unbroken and were labels in good condition? (YES) NO
  15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? (YES) NO
  16. Did all bottle labels agree with custody papers? (YES) NO
  17. Were correct containers used for the tests indicated? (YES) NO
  18. Were samples received at the correct pH? (YES) NO
  19. Was a sufficient amount of sample sent for tests indicated? (YES) NO
  20. Were bubbles absent in VOA samples? If NO, list by sample#: FB091099-01 & TB091099-01 YES NO  
990807-01 990801-03
  21. Laboratory labelling verified by: (Initials): \_\_\_\_\_ (date): 1/1

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

850-656-2423  
385-9879  
Terry Hansen  
Tel: 656-2423

Fax Cover Sheet

To: Tetra Tech, N.J.S

Lee Eck Terry Hansen

Fax #: ~~412-921-4040~~ / (850) 385-9860

From: Henry Lebowitz

Date: 9-13-99

Re: CTO 4886 NAS Pensacola

# of Pages:

(includes cover sheet)

1

- 1) Sample container labelled ID# 100-MW-001- should be ID# 100-MW-001-01 according to CQC. Ceimic will assign ID according to CQC.
- 2) Ceimic received 16 samples, labelled ID# 100-MW-003-01 and none labelled ID# 100-MW-002-01. The chain of custody indicated there should be eight containers for each ID. Ceimic assigned 100-MW-002-01 ID's according to the sample collection time which was specific to each sample. Time 1420 = 100-MW-002-01  
1130 = 100-MW-003-01

12

Chain of Custody  
Original Chain of Custody goes to Laboratory

990807

Page 1 of 1

cl #		Project Name		Cooler Temp.		Analyses												Remarks
To #486		NHS Pensacola OLF Brown		4°C														
Plers (please print)				Cooler #		TCL VOC	pH	TCL SUOC	pH	Pest/PCB	pH	THL Me talh	pH	Cyanide	pH	pH	pH	
Date	Time	Comp. Grab	Sample Identification	Sample Matrix	No. of Containers													
9/10	1245	G	100-mw-001-01	W	8	X		X		X		X		X				
9/10	1420	G	100-mw-002-01	W	8	X		X		X		X		X				
9/10	1130	G	100-mw-003-01	W	8	X		X		X		X		X				
9/10	-	G	100-mw-000-01	W	8	X		X		X		X		X			Dup.	
9/10	0920	G	100-mw-004-01	W	8	X		X		X		X		X				
9/10	1210	G	10 FB 091099-01	W	8	X		X		X		X		X			Field Blank	
9/10	1435	G	ER 091099-01	W	8	X		X		X		X		X			Equiv. Rinse	
9/10	0900	G	TB 091099-01	W	2	X											Tip Blank	
Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time						
990807				9/10/99 1800				Fed Ex										
Relinquished by (signature)				Date/Time				Received by (signature)				Date/Time						
Relinquished by (signature)				Date/Time				Received by Celmic (signature)				Date/Time						
Amy St John																		

Remarks:



Lab Use

**CHAIN OF CUSTODY**

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

---

October 8, 1999

Ms. Lee Leck  
Tetra Tech NUS  
Foster Plaza VII  
661 Andersen Dr.  
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS. Outlying Landing Field Bronson Pensacola, FL Project, Project No. CTO086, SDG No. 091099. The 3 aqueous samples were taken from the field on September 10, 1999 and received at Ceimic Corporation on September 11, 1999.

These samples are reported under Ceimic Project Number 990807, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,



Neil Pothier, Ph.D  
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen  
Tetra Tech NUS  
1311 Executive Center Dr.  
Ellis Bldg.  
Suite 220  
Tallahassee, FL 32301

Mr. Arnold Lamb  
Tetra Tech NUS  
794 S. Military Trail  
Deerfield Beach, FL 33442

## TOTAL METALS AND CYANIDE

-7-

## LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Solid LCS Source: ERA LCSS 241

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Aluminum	10000.0	10048.00	100.5	5250.0	3974.8	3150.0	5670.0	75.7
Barium	10000.0	9440.00	94.4	330.0	297.6	221.1	405.9	90.2
Beryllium	250.0	250.18	100.1	42.7	40.2	34.2	47.8	94.2
Calcium	25000.0	24906.00	99.6	1320.0	1108.0	937.2	1716.0	83.9
Chromium	1000.0	946.62	94.7	46.0	38.2	36.8	51.5	82.9
Cobalt	2500.0	2335.50	93.4	120.0	104.0	93.6	124.8	86.7
Copper	1250.0	1165.70	93.3	147.0	131.1	110.3	163.2	89.2
Cyanide	80.0	79.01	98.8	160.0	154.5	65.2	255.0	96.5
Iron	5000.0	5004.60	100.1	10200.0	7488.6	4692.0	13056.0	73.4
Magnesium	25000.0	25464.00	101.9	2340.0	2056.8	1638.0	2433.6	87.9
Manganese	2500.0	2358.50	94.3	166.0	137.1	136.1	172.6	82.6
Nickel	2500.0	2306.30	92.3	138.0	120.5	93.8	157.3	87.3
Potassium	25000.0	23814.00	95.3	1480.0	1186.6	947.2	2012.8	80.2
Sodium	25000.0	25771.00	103.1	845.0	695.3	616.9	904.2	82.3
Vanadium	2500.0	2466.60	98.7	65.1	55.0	51.4	72.3	84.5
Zinc	2500.0	2346.90	93.9	75.0	61.5	59.3	81.8	82.0

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

id LCS Source: ERA LCSS 241

eous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)			
	True	Found	%R	True	Found	C	Limits %R
Cyanide	80.0	74.0	92.5	160.0	139.5	65.2	255.0 87.2

IMIC

TOTAL METALS AND CYANIDE  
-7-  
LABORATORY CONTROL SAMPLE

tract: Outlaying Landing Field Bronson Pensacola, FL  
Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02  
id LCS Source: ERA LCSS 241  
eous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)			
	True	Found	%R	True	Found	C	Limits %R
Mercury				2.2	2.23	1.5	2.9 102.6



## TOTAL METALS AND CYANIDE

-7-

## LABORATORY CONTROL SAMPLE

Contract: Outlying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Solid LCS Source: ERA LCSS 241

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)				
	True	Found	%R	True	Found	C	Limits	%R
Antimony	500.0	453.71	90.7	33.0	20.1		12.2	50.5 60.8
Arsenic	200.0	181.43	90.7	93.9	83.4		66.7	119.3 88.8
Cadmium	100.0	87.10	87.1	97.2	82.0		73.9	105.0 84.4
Lead	200.0	177.29	88.6	135.0	113.6		106.7	155.3 84.2
Selenium	200.0	183.29	91.6	96.0	80.2		56.4	123.8 83.6
Silver	1250.0	1139.80	91.2	86.7	82.2		68.5	103.2 94.8
Thallium	200.0	171.60	85.8	45.7	40.9		35.2	58.0 89.5

TOTAL METALS AND CYANIDE

-3-  
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL  
Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02  
Preparation Blank Matrix (soil/water): WATER  
Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	Continuing Calibration Blank (ug/L)						Preparation Blank		M
		1	C	2	C	3	C			
Aluminum		41.0	U	41.0	U	42.3	B	41.000	U	P
Barium		16.4	B	12.4	B	17.4	B	4.500	U	P
Beryllium		0.4	U	-0.4	B	0.4	U	-0.640	B	P
Calcium		-127.3	B	170.1	B	-254.8	B	-70.650	B	P
Chromium		-10.9	B	-11.8	B	-9.9	B	-8.050	B	P
Cobalt		7.1	B	5.7	B	8.5	B	5.200	U	P
Copper		-4.7	B	-6.6	B	-4.7	B	3.800	U	P
Cyanide								5.000	U	C
Iron		40.0	U	40.0	U	40.0	U	40.000	U	P
Magnesium		119.0	U	133.7	B	119.0	U	119.000	U	P
Manganese		3.0	U	3.0	U	3.0	U	3.000	U	P
Nickel		-24.4	B	-31.9	B	-23.9	B	-28.350	B	P
Potassium		222.0	U	314.8	B	286.8	B	222.000	U	P
Sodium		57.0	U	133.2	B	57.0	U	120.000	B	P
Vanadium		5.3	B	2.8	U	2.8	U	2.800	U	P
Zinc		5.5	U	5.5	U	5.5	U	10.400	B	P

## TOTAL METALS AND CYANIDE

-3-

## BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Aluminum	58.4	B	42.3	B	41.0	U	41.0	U	4.100	U	P
Barium	33.2	B	6.0	B	4.5	U	11.9	B	0.450	U	P
Beryllium	0.6	B	-0.4	B	-0.4	B	0.4	U	-0.043	B	P
Calcium	55.0	U	-566.2	B	-523.7	B	-84.8	B	-53.789	B	P
Chromium	-9.5	B	-12.3	B	-10.9	B	-11.4	B	-1.136	B	P
Cobalt	9.2	B	5.4	B	5.2	U	5.2	U	0.520	U	P
Copper	-4.7	B	-7.5	B	-8.4	B	-5.6	B	-0.653	B	P
Cyanide									0.500	U	C
Iron	40.0	U	40.0	U	-40.3	B	40.0	U	4.000	U	P
Magnesium	122.4	B	119.0	U	119.0	U	119.0	U	11.900	U	P
Manganese	4.8	B	3.0	U	-3.9	B	3.0	U	-0.432	B	P
Nickel	-23.0	B	14899.0		-30.6	B	-24.4	B	-2.747	B	P
Potassium	222.0	U	222.0	U	222.0	U	222.0	U	22.200	U	P
Sodium	73.6	B	-241.3	B	-181.7	B	57.0	U	-12.376	B	P
Vanadium	8.4	B	2.8	U	2.8	U	3.0	B	0.280	U	P
Zinc	7.4	B	18.0	B	5.5	U	5.5	U	1.780	B	P

TOTAL METALS AND CYANIDE

- 3 -  
BLANKS

tract: Outlying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.:            SDG NO.: 02SS02

paration Blank Matrix (soil/water): SOIL

paration Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Cyanide	10.0	U	10.0	U	10.0	U	10.0	U	0.500	U	C

## TOTAL METALS AND CYANIDE

-3-  
BLANKSContract: Outlaying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Mercury			0.14	U	0.14	U	0.14	U	0.070	U	AV

## TOTAL METALS AND CYANIDE

- 3 -

## BLANKS

Contract: Outlying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Preparation Blank Matrix (soil/water): WATERPreparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Antimony			2.6	U	2.6	U			2.600	U	P
Arsenic			3.6	U	3.6	U			3.600	U	P
Cadmium			0.4	U	0.4	U			0.430	U	P
Lead			2.7	U	2.7	U			2.700	U	P
Mercury			0.14	U	0.14	U	0.14	U	0.140	U	AV
Selenium			2.1	U	2.1	U			2.100	U	P
Silver			3.7	U	3.7	U			3.700	U	P
Thallium			4.4	U	4.4	U			4.400	U	P

## TOTAL METALS AND CYANIDE

-3-  
BLANKSContract: Outlaying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	0.260	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	0.360	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.043	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	0.270	U	P
Selenium	2.1	U	2.1	U	2.1	U	2.1	U	0.210	U	P
Silver	3.7	U	3.7	U	5.4	B	3.7	U	0.370	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	0.440	U	P

## TOTAL METALS AND CYANIDE

-3-  
BLANKSContract: Outlaying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Preparation Blank Matrix (soil/water): SOILPreparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	0.260	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	0.360	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.043	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	0.270	U	P
Selenium	2.1	U	2.1	U	2.1	U	2.1	U	0.210	U	P
Silver	3.7	U	3.7	U	5.4	B	3.7	U	0.370	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	0.440	U	P



TOTAL METALS AND CYANIDE  
- 5b -  
POST DIGEST SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01A

Contract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

Matrix (soil/water): SOIL Level (low/med): LOW

Concentration Units: ug/L

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Antimony		171.03		2.60	U	200.0	85.5		P
Arsenic		367.16		3.60	U	400.0	91.8		P
Cadmium		39.76		0.43	U	50.0	79.5		P
Lead		131.41		41.27		100.0	90.1		P
Mercury		1.02		0.14	U	1.0	102.0		AV
Selenium		160.73		2.10	U	200.0	80.4		P
Silver		172.54		3.70	U	200.0	86.3		P
Thallium		342.47		4.40	U	400.0	85.6		P

Comments: Approved: [Signature]

TOTAL METALS AND CYANIDE

- 5a -

SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01SD

Contract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS

SDG NO.: 02SS02

Matrix (soil/water): SOIL

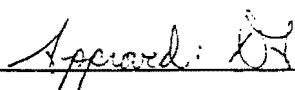
Level (low/med): LOW

Solids for Sample: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		1964.8412		1930		225.38	16.1		P
Antimony	75 - 125	30.1826		0.293	U	56.34	53.6	N	P
Arsenic	75 - 125	4.0890		0.406	U	4.51	90.7		P
Barium	75 - 125	201.3185		2.51	B	225.38	88.2		P
Beryllium	75 - 125	5.4632		0.042	U	5.63	97.0		P
Cadmium	75 - 125	4.6499		0.049	U	5.63	82.5		P
Calcium	75 - 125	209.1278	B	6.20	U	225.38	92.8		P
Chromium	75 - 125	20.5229		0.609	U	22.54	91.1		P
Cobalt	75 - 125	50.4846		0.798	B	56.34	88.2		P
Copper	75 - 125	24.9301		0.997	B	28.17	85.0		P
Iron		856.0176		802		112.69	47.7		P
Lead	75 - 125	6.2227		4.65		2.25	69.8	N	P
Magnesium	75 - 125	259.0827	B	64.3	B	225.38	86.4		P
Manganese	75 - 125	51.6903		2.13		56.34	88.0		P
Mercury	75 - 125	0.5172		0.070	U	0.50	103.5		AV
Nickel	75 - 125	46.6948		0.710	U	56.34	82.9		P
Potassium	75 - 125	260.9759	B	54.4	B	225.38	91.6		P
Selenium	75 - 125	1.2162		0.237	U	1.13	107.9		P
Silver	75 - 125	5.2400		0.417	U	5.63	93.0		P
Sodium	75 - 125	222.8758	B	6.42	U	225.38	98.9		P
Thallium	75 - 125	4.6317		0.496	U	5.63	82.2		P
Vanadium	75 - 125	55.2164		3.87	B	56.34	91.1		P
Zinc	75 - 125	49.8253		3.36		56.34	82.5		P

Comments:

Approved: 

## TOTAL METALS AND CYANIDE

- 5a -

## SPIKE SAMPLE RECOVERY

SAMPLE NO.

100-SS-01S

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990799

SAS

SDG NO.: 02SS02Matrix (soil/water): SOILLevel (low/med): LOWSolids for Sample: 87.0Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum		1784.4265		1930		225.38	-63.9		P
Antimony	75 - 125	35.9646		0.293	U	56.34	63.8	N	P
Arsenic	75 - 125	4.0738		0.406	U	4.51	90.4		P
Barium	75 - 125	194.9516		2.51	B	225.38	85.4		P
Beryllium	75 - 125	5.2693		0.042	U	5.63	93.5		P
Cadmium	75 - 125	4.7017		0.049	U	5.63	83.4		P
Calcium	75 - 125	170.9376	B	6.20	U	225.38	75.8		P
Chromium	75 - 125	19.3475		0.609	U	22.54	85.8		P
Cobalt	75 - 125	49.1278		0.798	B	56.34	85.8		P
Copper	75 - 125	25.1431		0.997	B	28.17	85.7		P
Cyanide	75 - 125	9366.3125		484	U	4770.99	196.3	N	C
Iron		827.9130		802		112.69	22.8		P
Lead	75 - 125	6.7709		4.65		2.25	94.1		P
Magnesium	75 - 125	250.0000	B	64.3	B	225.38	82.4		P
Manganese	75 - 125	49.3577		2.13		56.34	83.8		P
Mercury	75 - 125	0.4182		0.070	U	0.48	87.3		AV
Nickel	75 - 125	47.4386		0.710	U	56.34	84.2		P
Potassium	75 - 125	262.3845	B	54.4	B	225.38	92.3		P
Selenium	75 - 125	0.9337		0.237	U	1.13	82.9		P
Silver	75 - 125	5.3220		0.417	U	5.63	94.5		P
Sodium	75 - 125	203.8990	B	6.42	U	225.38	90.5		P
Thallium	75 - 125	4.4755		0.496	U	5.63	79.4		P
Vanadium	75 - 125	54.3419		3.87	B	56.34	89.6		P
Zinc	75 - 125	48.9182		3.36		56.34	80.8		P

Comments:

*Approved: [Signature]*

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-004-01

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Matrix (soil/water): WATERLab Sample ID: 990799-20Level (low/med): LOWDate Received: 09/11/99Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	76.3	B		P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	13.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2980	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	3630			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	586	B		P
7439-96-5	Manganese	50.1			P
7439-97-6	Mercury	0.19	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	471	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4910	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	15.1	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments:

Approved: [Signature]

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-DD-01

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Matrix (soil/water): WATERLab Sample ID: 990799-19Level (low/med): LOWDate Received: 09/11/99Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	374			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	22.8	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	3240	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	12.0	B		P
7440-50-8	Copper	4.8	B		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	1960			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	1060	B		P
7439-96-5	Manganese	36.9			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	960	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4360	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	12.6	B		P
7440-66-6	Zinc	13.7	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments: Approved: [Signature]

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-003-01

Sample: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): WATER

Lab Sample ID: 990799-18

Level (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	92.3	B		P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2700	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	2180			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	395	B		P
7439-96-5	Manganese	14.3	B		P
7439-97-6	Mercury	0.19	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	411	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	2560	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	16.8	B		P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

Approved: *[Signature]*

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-002-01

Contract: Outlaying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Matrix (soil/water): WATERLab Sample ID: 990799-17Level (low/med): LOWDate Received: 09/11/99Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	13.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	2960	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	3570			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	617	B		P
7439-96-5	Manganese	41.0			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	393	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	3410	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	12.3	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments: Approved: DA

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-MW-001-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): WATER

Lab Sample ID: 990799-16

Level (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	269			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	17.9	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	3210	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	1910			P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	690	B		P
7439-96-5	Manganese	33.5			P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	549	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4180	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	5.7	B		P
7440-66-6	Zinc	81.5			P

Co. Before: COLORLESS Clarity Before: CLEAR

Texture:

Color After: COLORLESS Clarity After: CLEAR

Artifacts:

Comments:

Approved: *[Signature]*



TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-04

Extract: Outlaying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Matrix (soil/water): SOILLab Sample ID: 990799-14Level (low/med): LOWDate Received: 09/11/99Solids: 92.6

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	718			P
7440-36-0	Antimony	0.28	U	N	P
7440-38-2	Arsenic	0.38	U		P
7440-39-3	Barium	1.1	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	5.8	U		P
7440-47-3	Chromium	0.57	U		P
7440-48-4	Cobalt	0.55	U		P
7440-50-8	Copper	0.40	U		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	287			P
7439-92-1	Lead	0.64		N	P
7439-95-4	Magnesium	33.6	B		P
7439-96-5	Manganese	0.60	B		P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.67	U		P
7440-09-7	Potassium	42.2	B		P
7782-49-2	Selenium	0.22	U		P
7440-22-4	Silver	0.39	U		P
7440-23-5	Sodium	6.0	U		P
7440-28-0	Thallium	0.47	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	2.1	B		P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOW

Clarity After:

Artifacts:

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-03

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): SOIL ..

.. Lab Sample ID: 990799-13

Level (low/med): LOW

Date Received: 09/11/99

Solids: 91.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	666			P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.37	U		P
7440-39-3	Barium	1.5	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.6	U		P
7440-47-3	Chromium	0.55	U		P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	0.39	U		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	358			P
7439-92-1	Lead	2.2		N	P
7439-95-4	Magnesium	37.3	B		P
7439-96-5	Manganese	1.7			P
7439-97-6	Mercury	0.06	U		AV
7440-02-0	Nickel	0.64	U		P
7440-09-7	Potassium	46.1	B		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.38	U		P
7440-23-5	Sodium	5.8	U		P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	0.92	B		P
7440-66-6	Zinc	2.6			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-05

Contract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): SOIL

Lab Sample ID: 990799-12

Level (low/med): LOW

Date Received: 09/11/99

Solids: 91.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	889			P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.36	U		P
7440-39-3	Barium	1.2	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.5	U		P
7440-47-3	Chromium	0.54	U		P
7440-48-4	Cobalt	0.52	U		P
7440-50-8	Copper	0.38	U		P
	Cyanide	0.53	U	N	C
7439-89-6	Iron	541			P
7439-92-1	Lead	3.8		N	P
7439-95-4	Magnesium	39.8	B		P
7439-96-5	Manganese	0.38	B		P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.63	U		P
7440-09-7	Potassium	61.8	B		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.37	U		P
7440-23-5	Sodium	5.7	U		P
7440-28-0	Thallium	0.44	U		P
7440-62-2	Vanadium	1.4	B		P
7440-66-6	Zinc	2.2			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

Approved: *DR*

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-003-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): WATER

Lab Sample ID: 990799-11

Level (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1230			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	9.4	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	492	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.7	B		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	1860			P
7439-92-1	Lead	10.5		N	P
7439-95-4	Magnesium	538	B		P
7439-96-5	Manganese	6.1	B		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	561	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	4040	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	4.1	B		P
7440-66-6	Zinc	21.2			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

Approved: *JS*

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-MW-004-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): WATER

Lab Sample ID: 990799-10

Level (low/med): LOW

Date Received: 09/11/99

Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	318			P
7440-36-0	Antimony	2.6	U	N	P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	23.8	B		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	949	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	6.4	B		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U	N	C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U	N	P
7439-95-4	Magnesium	1040	B		P
7439-96-5	Manganese	10.6	B		P
7439-97-6	Mercury	0.20	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	505	B		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	3220	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	6.9	B		P
7440-66-6	Zinc	22.1			P

Color Before: COLORLESS

Clarity Before: CLEAR

Texture:

Color After: COLORLESS

Clarity After: CLEAR

Artifacts:

Comments:

Approved: *AS*

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-04

Contract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): SOIL

Lab Sample ID: 990799-08

Level (low/med): LOW

Date Received: 09/09/99

Solids: 86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2580			P
7440-36-0	Antimony	0.27	U	N	P
7440-38-2	Arsenic	0.55	B		P
7440-39-3	Barium	2.9	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.6	U		P
7440-47-3	Chromium	0.55	U		P
7440-48-4	Cobalt	0.53	U		P
7440-50-8	Copper	0.39	U		P
	Cyanide	0.56	U	N	C
7439-89-6	Iron	872			P
7439-92-1	Lead	3.4		N	P
7439-95-4	Magnesium	62.3	B		P
7439-96-5	Manganese	2.3			P
7439-97-5	Mercury	0.07	U		AV
7440-02-0	Nickel	0.64	U		P
7440-09-7	Potassium	58.8	B		P
7782-49-2	Selenium	0.28	B		P
7440-22-4	Silver	0.38	U		P
7440-23-5	Sodium	10.8	B		P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	3.7	B		P
7440-66-6	Zinc	3.4			P

Co. Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

Approved: *[Signature]*

TOTAL METALS AND CYANIDE  
.. -1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-03

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02Matrix (soil/water): SOILLab Sample ID: 990799-07Level (low/med): LOWDate Received: 09/09/99Solids: 92.5Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2080			P
7440-36-0	Antimony	0.23	U	N	P
7440-38-2	Arsenic	0.35	B		P
7440-39-3	Barium	2.3	B		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.8	U		P
7440-47-3	Chromium	0.59	B		P
7440-48-4	Cobalt	0.46	U		P
7440-50-8	Copper	0.39	B		P
	Cyanide	0.51	U	N	C
7439-89-6	Iron	840			P
7439-92-1	Lead	2.9		N	P
7439-95-4	Magnesium	51.1	B		P
7439-96-5	Manganese	2.0			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.55	U		P
7440-09-7	Potassium	42.5	B		P
7782-49-2	Selenium	0.18	U		P
7440-22-4	Silver	0.33	U		P
7440-23-5	Sodium	10.5	B		P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	3.1			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOW

Clarity After:

Artifacts:

Comments:

Approved: [Signature]

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-22-DD

tract: Outlaying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02rix (soil/water): SOILLab Sample ID: 990799-06el (low/med): LOWDate Received: 09/09/99olids: 89.2Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2950			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.53	B		P
7440-39-3	Barium	3.1	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.1	U		P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	0.58	U		P
7440-50-8	Copper	0.48	B		P
	Cyanide	0.54	U	N	C
7439-89-6	Iron	953			P
7439-92-1	Lead	2.3		N	P
7439-95-4	Magnesium	52.4	B		P
7439-96-5	Manganese	2.5			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.70	U		P
7440-09-7	Potassium	43.6	B		P
7782-49-2	Selenium	0.23	U		P
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium	6.3	U		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	3.9	B		P
7440-66-6	Zinc	3.5			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOW

Clarity After:

Artifacts:

Comments: Approved: [Signature]



## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): SOIL

Lab Sample ID: 990799-05

Level (low/med): LOW

Date Received: 09/09/99

Solids: 87.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1930			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.41	U		P
7440-39-3	Barium	2.5	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.2	U		P
7440-47-3	Chromium	0.61	U		P
7440-48-4	Cobalt	0.80	B		P
7440-50-8	Copper	1.0	B		P
	Cyanide	0.56	U	N	C
7439-89-6	Iron	802			P
7439-92-1	Lead	4.7		N	P
7439-95-4	Magnesium	64.3	B		P
7439-96-5	Manganese	2.1			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.71	U		P
7440-09-7	Potassium	54.4	B		P
7782-49-2	Selenium	0.24	U		P
7440-22-4	Silver	0.42	U		P
7440-23-5	Sodium	6.4	U		P
7440-28-0	Thallium	0.50	U		P
7440-62-2	Vanadium	3.9	B		P
7440-66-6	Zinc	3.4			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

Approved: *DL*

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

100-SS-02

Contract: Outlaying Landing Field Bronson Pensacola, FL

b Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): SOIL

Lab Sample ID: 990799-04

Level (low/med): LOW

Date Received: 09/09/99

Solids: 85.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3450			P
7440-36-0	Antimony	0.29	U	N	P
7440-38-2	Arsenic	0.40	U		P
7440-39-3	Barium	3.4	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.05	U		P
7440-70-2	Calcium	6.2	U		P
7440-47-3	Chromium	1.0	B		P
7440-48-4	Cobalt	0.58	U		P
7440-50-8	Copper	0.50	B		P
	Cyanide	0.57	U	N	C
7439-89-6	Iron	1210			P
7439-92-1	Lead	3.9		N	P
7439-95-4	Magnesium	81.8	B		P
7439-96-5	Manganese	3.4			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.71	U		P
7440-09-7	Potassium	63.6	B		P
7782-49-2	Selenium	0.24	B		P
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium	6.4	U		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	5.0	B		P
7440-66-6	Zinc	3.9			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

Approved: [Signature]

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SU-01

Contract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC Case No.: 990799 SAS No.: SDG NO.: 02SS02

Matrix (soil/water): SOIL Lab Sample ID: 990799-03

Level (low/med): LOW Date Received: 09/09/99

Solids: 94.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2710			P
7440-36-0	Antimony	0.26	U	N	P
7440-38-2	Arsenic	0.81	B		P
7440-39-3	Barium	3.2	B		P
7440-41-7	Beryllium	0.04	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	5.4	U		P
7440-47-3	Chromium	3.2			P
7440-48-4	Cobalt	1.1	B		P
7440-50-8	Copper	1.3	B		P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	1490			P
7439-92-1	Lead	1.3		N	P
7439-95-4	Magnesium	68.5	B		P
7439-96-5	Manganese	2.1			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.82	B		P
7440-09-7	Potassium	44.1	B		P
7782-49-2	Selenium	0.21	U		P
7440-22-4	Silver	0.36	U		P
7440-23-5	Sodium	5.6	U		P
7440-28-0	Thallium	0.43	U		P
7440-62-2	Vanadium	5.1			P
7440-66-6	Zinc	3.3			P

Color Before: BROWN Clarity Before: Texture: MEDIUM

Color After: YELLOW Clarity After: Artifacts:

Comments: *Approved: [Signature]*

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-01

tract: Outlaying Landing Field Bronson Pensacola, FL

Code: CEIMIC

Case No.: 990799

SAS No.:

SDG NO.: 02SS02

Matrix (soil/water): SOIL

Lab Sample ID: 990799-02

Level (low/med): LOW

Date Received: 09/09/99

Solids: 96.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2440			P
7440-36-0	Antimony	0.23	U	N	P
7440-38-2	Arsenic	0.31	U		P
7440-39-3	Barium	2.3	B		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.8	U		P
7440-47-3	Chromium	1.0			P
7440-48-4	Cobalt	0.62	B		P
7440-50-8	Copper	1.3	B		P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	363			P
7439-92-1	Lead	5.1		N	P
7439-95-4	Magnesium	60.3	B		P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.06	U		AV
7440-02-0	Nickel	0.55	U		P
7440-09-7	Potassium	62.0	B		P
7782-49-2	Selenium	0.46			P
7440-22-4	Silver	0.32	U		P
7440-23-5	Sodium	9.7	B		P
7440-28-0	Thallium	0.38	U		P
7440-62-2	Vanadium	2.8	B		P
7440-66-6	Zinc	2.8			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUM

Color After: YELLOW

Clarity After:

Artifacts:

Comments:

*Spaced: DT*

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

102-SS-02

tract: Outlying Landing Field Bronson Pensacola, FLCode: CEIMICCase No.: 990799

SAS No.:

SDG NO.: 02SS02mix (soil/water): SOILLab Sample ID: 990799-01el (low/med): LOWDate Received: 09/09/99olids: 97.2Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1220			P
7440-36-0	Antimony	0.22	U	N	P
7440-38-2	Arsenic	0.30	U		P
7440-39-3	Barium	2.2	B		P
7440-41-7	Beryllium	0.03	U		P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	4.6	U		P
7440-47-3	Chromium	0.45	U		P
7440-48-4	Cobalt	0.76	B		P
7440-50-8	Copper	0.73	B		P
	Cyanide	0.50	U	N	C
7439-89-6	Iron	444			P
7439-92-1	Lead	3.3		N	P
7439-95-4	Magnesium	49.7	B		P
7439-96-5	Manganese	2.4			P
7439-97-6	Mercury	0.07	U		AV
7440-02-0	Nickel	0.52	U		P
7440-09-7	Potassium	53.8	B		P
7782-49-2	Selenium	0.17	U		P
7440-22-4	Silver	0.31	U		P
7440-23-5	Sodium	4.7	U		P
7440-28-0	Thallium	0.37	U		P
7440-62-2	Vanadium	1.9	B		P
7440-66-6	Zinc	2.8			P

Color Before: BROWN

Clarity Before:

Texture: MEDIUMColor After: YELLOW

Clarity After:

Artifacts:

Comments:

Approved: David Tattoli

TOTAL METALS AND CYANIDE  
- Cover Page -  
INORGANIC ANALYSIS DATA PACKAGE

tr. Outlaying Landing Field Bronson Pensacola, FL      SDG No.: 02SS02  
Code: CEIMIC      Case No.: 990799      SAS No.:  
7 No.: ILM04.0

<u>Sample No.</u>	<u>Lab Sample ID.</u>
<u>100-MW-002-01</u>	<u>990799-17</u>
<u>100-MW-003-01</u>	<u>990799-18</u>
<u>100-MW-DD-01</u>	<u>990799-19</u>
<u>100-MW-004-01</u>	<u>990799-20</u>

re ICP interelement corrections applied?      Yes/No YES  
re ICP background corrections applied?      Yes/No YES  
If yes-were raw data generated before  
application of background corrections?      Yes/No NO

omments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

certify that this data package is in compliance with the terms and conditions of the  
contract, both technically and for completeness, for other than the conditions detailed  
above. Release of the data contained in this hardcopy data package and in the  
computer-readable data submitted on floppy diskette has been authorized by the Laboratory  
Manager or the Manager's designee, as verified by the following signature.

Signature: Donald Tortorelli      Name: Donald Tortorelli  
Date: 12/1/77      Title: INORGANIC LAB MGR.

TOTAL METALS AND CYANIDE  
- Cover Page -  
INORGANIC ANALYSIS DATA PACKAGE

Contract: Outlying Landing Field Bronson Pensacola, FLSDG No.: 02SS02Lab Code: CEIMICCase No.: 990799

SAS No.:

DW No.: ILM04.0

<u>Sample No.</u>	<u>Lab Sample ID.</u>
102-SS-02	990799-01
102-SS-01	990799-02
102-SU-01	990799-03
100-SS-02	990799-04
100-SS-01	990799-05
100-SS-01D	990799-05D
100-SS-01S	990799-05S
100-SS-01SD	990799-05SD
100-22-DD	990799-06
100-SS-03	990799-07
100-SS-04	990799-08
102-MW-004-01	990799-10
102-MW-003-01	990799-11
102-SS-05	990799-12
102-SS-03	990799-13
102-SS-04	990799-14
100-MW-001-01	990799-16

Were ICP interelement corrections applied?

Yes/No YES

Were ICP background corrections applied?

Yes/No YESIf yes-were raw data generated before  
application of background corrections?Yes/No NO

Comments:

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Donald TortorelliName: DONALD TORTORELLIDate: 10/1/79Title: INORGANIC LAB MGR.

## METAL ANALYSES



## CEIMIC CORPORATION

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990797Analytical Method: 8082Surr. Sol. ID: PW990808 CBPrep Date/Time: 9/14/99Client: Tetra Tech NCSExtraction Method: 3550AMS Sol. ID: PW990701 BAnalysis: PCB onlyBlank ID: PC914-B4LCS ID: PC914-LCS4Add'l Spike ID: -Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION							INIT & DATE		COMMENTS	
Client ID	Ceimic ID	Vol/ Wt (ml/g)	Surr Vol (μl)	MS Vol (μl)	% Moist	pH	Acid pH	Basic pH	Final Ext	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS		GC/ LC
	PC914-B4	200.2	100	100			-	-	10.12									100		
	-LCS4		100																	
102-SS-02	PC914-01	20.1			12															
102-SS-01	-02	20.2			13															
102-SS-01	-03	20.2			07															
100-SS-02	-04	20.2			17															
100-SS-01	-05	20.2			12															
↓	-05 ACS	20.3	100																	
↓	-05 ACS	20.1																		
100-SS-03	-06	20.2			16															
100-SS-03	-07	20.1			06															
100-SS-04	-08	20.2			14															
102-SS-05	-12	20.1			07															

\*All volumes are in milliliters (ml) unless otherwise noted.

Extr. Solvent ID: N17255/N25255 Sodium Sulfate Lot #: N29521

Reagents IDs:

Final Solvent ID: 1Supervisor Init: DSContainer Lot #: Surrogate Added By: MPPrepared by: MC12Witnessed By: DA☐ GPC X Y Z☐ Silica☐ FlorisilLot #: 1

Comment Codes:

RE = Rextract

AL 2nd Aliquot

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Prep Date/Time: /

Analysis: *PC-13*

Matrix: *Sov*

[illegible]

Extr. Solvent ID: NQ255/N2324 Sodium Sulfate Lot #: N2959

\*All volumes are in milliliters (ml) unless otherwise noted.

Final Solvent ID: 1 Supervisor Init: MA

Reagents IDs:

Container Lot #:            Surrogate Added By:           MK          

Prepared by: MR Witnessed By: DA

GPC	X	Y	Z
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	1	1	1
11	1	1	1
12	1	1	1
13	1	1	1
14	1	1	1
15	1	1	1
16	1	1	1
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18	1	1	1
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44	1	1	1
45	1	1	1
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89	1	1	1
90	1	1	1
91	1	1	1
92	1	1	1
93	1	1	1
94	1	1	1
95	1	1	1
96	1	1	1
97	1	1	1
98	1	1	1
99	1	1	1
100	1	1	1

☐ Silica

**Florasil**

Lot #:

**Comment Codes:**

RE = Reextract

AL 2nd Aliquot

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Prep Date/Time: 09 / 15 / 95

Analysis: PCB only

Matrix: *agony*

[illegible]

\*All volumes are in milliliters (ml) unless otherwise noted.

Reagents IDs:

GPC	X	Y	Z
-----	---	---	---

☐ Silen

☐ Florisil

Lot #:

**Comment Codes:**

RE = Reextract

AL 2nd Aliquot

**LABORATORY CONTROL SUMMARY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0914-LCS4

Matrix: Soil

Ceimic Project: 990799

Date Sample Analyzed: 09/22/99

Date Sample Prepared: 09/14/99

Associated Method Blank: P0914-B4

Concentration in: ug/Kg (ppb) ÷

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	167	110	66	30 - 150
Aroclor-1260	167	140	84	34 - 174

N Not detected  
÷ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	60	32 - 103
Decachlorobiphenyl	68	25 - 131

\* These limits are provided for advisory purposes.

Reported by: EWB

Approved by: ATL

**LABORATORY CONTROL SUMMARY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS4

Matrix: Aqueous

Ceimic Project: 990799

Date Sample Analyzed: 09/27/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	5.0	4.7	94	30 - 150
Aroclor-1260	5.0	5.6	112	47 - 127

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

**METHOD BLANK**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Ceimic Project: 990299

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery		
Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

\* These limits are provided for advisory purposes.

Reported by:                     SWB                    

Approved by:                     [Signature]

**METHOD BLANK**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0914-B4

Matrix: Soil

Ceimic Project: 990799 -

Date Sample Extracted: 09/14/99

Date Sample Analyzed: 09/22/99

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	33.3
Aroclor-1221	ND	66.6
Aroclor-1232	ND	33.3
Aroclor-1242	ND	33.3
Aroclor-1248	ND	33.3
Aroclor-1254	ND	33.3
Aroclor-1260	ND	33.3

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery		
Surrogate Compound	Recovery(%)	QC Limits(%) <sup>*</sup>
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	68	25 - 131

<sup>\*</sup> These limits are provided for advisory purposes.

Reported by:                     JMB                    

Approved by:                     JL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-004-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-20  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	70	34 - 129

\* These limits are provided for advisory purposes.

Reported by:

*WJB*

Approved by:

*IL*



POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-DD-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-19  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery		
Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	90	34 - 129

\* These limits are provided for advisory purposes.

Reported by: WJ

Approved by: HL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-003-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-18  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor 1216	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery (%)	QC Limits (%)*
tetrachloro-m-xylene	85	56 - 111
decachlorobiphenyl	80	34 - 129

\*These limits are provided for advisory purposes.

Reported by: QNB

Approved by: IL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-002-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-17  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	100	56 - 111
Decachlorobiphenyl	90	34 - 129

\* These limits are provided for advisory purposes.

Reported by: W.B.

Approved by: fl

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-001-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-16  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	110	56 - 111
Decachlorobiphenyl	115	34 - 129

\* These limits are provided for advisory purposes.

Reported by: JSB

Approved by: KL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-04  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 92

Laboratory ID: 990799-14 --  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	78	32 - 103
Decachlorobiphenyl	75	25 - 131

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-03  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 79

Laboratory ID: 990799-13  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	41.5
Aroclor-1221	ND	83.0
Aroclor-1232	ND	41.5
Aroclor-1242	ND	41.5
Aroclor-1248	ND	41.5
Aroclor-1254	ND	41.5
Aroclor-1260	ND	41.5

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	60	32 - 103
Decachlorobiphenyl	63	25 - 131

\* These limits are provided for advisory purposes.

Reported by: WJG

Approved by: HL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-05  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 93

Laboratory ID: 990799-12  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected  
÷ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery (%)	QC Limits (%)*
Tetrachloro-m-xylene	65	32 - 103
Decachlorobiphenyl	63	25 - 131

\* These limits are provided for advisory purposes.

Reported by: W3

Approved by: KL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-MW-003-01  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-11  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	55	34 - 129

\* These limits are provided for advisory purposes.

Reported by: RWS

Approved by: RL



POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-MW-004-01  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Aqueous

Laboratory ID: 990799-10  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/28/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	105	34 - 129

\* These limits are provided for advisory purposes.

Reported by: W33

Approved by: IL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-04  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 86

Laboratory ID: 990799-08  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	38.5
Aroclor-1221	ND	77.0
Aroclor-1232	ND	38.5
Aroclor-1242	ND	38.5
Aroclor-1248	ND	38.5
Aroclor-1254	ND	38.5
Aroclor-1260	ND	38.5

ND = Not detected.  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	73	32 - 103
Decachlorobiphenyl	60	25 - 131

\* These limits are provided for advisory purposes.

Reported by: YNS

Approved by: IL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-03  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 94

Laboratory ID: 990799-07  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	35.0
Aroclor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	32 - 103
Decachlorobiphenyl	65	25 - 131

\* These limits are provided for advisory purposes.

Reported by: WSB

Approved by: HL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-22-DD  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 84

Laboratory ID: 990799-06  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	39.4
Aroclor-1221	ND	78.8
Aroclor-1232	ND	39.4
Aroclor-1242	ND	39.4
Aroclor-1248	ND	39.4
Aroclor-1254	ND	39.4
Aroclor-1260	ND	39.4

ND = Not detected.  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	32 - 103
Decachlorobiphenyl	68	25 - 131

\* These limits are provided for advisory purposes.

Reported by: RUB

Approved by: HL

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
 by SW846 Method 8080A

Client: Tetra Tech NUS

Laboratory ID: 990799-05MS

Client Sample ID: 100-SS-01

Date Sample Extracted: 09/14/99

Date Sampled: 09/08/99

Date Sample Analyzed: 09/22/99

Date Sample Received: 09/09/99

Associated Method Blank: P0914-B4

Matrix: Soil

Final Extract Volume (mL): 10.0

Percent Solids: 88

Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery(%)
Aroclor-1016	188	ND	140	74
Aroclor-1260	188	ND	150	80

Target Analyte	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
Aroclor-1016	120	64	11.8	20	30 - 150
Aroclor-1260	140	74	6.6	20	34 - 174

ND = Not detected  
 ÷ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	50	32 - 103
Decachlorobiphenyl	63	60	25 - 131

\* These limits are provided for advisory purposes.

Reported by: SWB

Approved by: [Signature]

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-01  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 88

Laboratory ID: 990799-05  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	37.6
Aroclor-1221	ND	75.2
Aroclor-1232	ND	37.6
Aroclor-1242	ND	37.6
Aroclor-1248	ND	37.6
Aroclor-1254	ND	37.6
Aroclor-1260	ND	37.6

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	45	32 - 103
Decachlorobiphenyl	57	25 - 131

\* These limits are provided for advisory purposes.

Reported by: DN3

Approved by: KL

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-02  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 83

Laboratory ID: 990799-04  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	39.8
Aroclor-1221	ND	79.6
Aroclor-1232	ND	39.8
Aroclor-1242	ND	39.8
Aroclor-1248	ND	39.8
Aroclor-1254	ND	39.8
Aroclor-1260	ND	39.8

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	32 - 103
Decachlorobiphenyl	70	25 - 131

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-SU-01  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 93

Laboratory ID: 990799-03  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
  
Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	68	32 - 103
Decachlorobiphenyl	73	25 - 131

\* These limits are provided for advisory purposes.

Reported by: RWB

Approved by: KL



POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Sample ID: 102-SS-01  
Sampled: 09/08/99  
Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 87

Laboratory ID: 990799-02  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Polychlor-1016	ND	38.3
Polychlor-1221	ND	76.6
Polychlor-1232	ND	38.3
Polychlor-1242	ND	38.3
Polychlor-1248	ND	38.3
Polychlor-1254	ND	38.3
Polychlor-1260	ND	38.3

ND = Not detected  
Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery (%)	QC Limits(%)*
Tetrachloro-m-xylene	48	32 - 103
Decachlorobiphenyl	57	25 - 131

These limits are provided for advisory purposes.

Reported by: WJ

Approved by: HL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-02  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 88

Laboratory ID: 990799-01  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/22/99  
Associated Method Blank: P0914-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	37.3
Aroclor-1221	ND	74.6
Aroclor-1232	ND	37.3
Aroclor-1242	ND	37.3
Aroclor-1248	ND	37.3
Aroclor-1254	ND	37.3
Aroclor-1260	ND	37.3

ND = Not detected.  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	68	25 - 131

\* These limits are provided for advisory purposes.

Reported by:     *WJ*    

Approved by:     *HL*

## PCB ANALYSES

# CEIMIC CORPORATION

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990799

Analytical Method: 8081A

Surr. Sol. ID: PW990330B

Prep Date/Time: 09/15/99

Client: CEIBA TECH NUS

Extraction Method: sep. funnel

MS Sol. ID: PW990701B

Analysis: Test

Blank ID: P00915B1

LCS ID: P00915LCS1

Add'l Spike ID: —

Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION							INIT & DATE		COMMENTS
Client ID	Ceimic ID	Vol/ Wt	Surr Vol	MS Vol	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisol Vol*	Post Florisol Vol*	Vol Trans*	GC/ MS	
		(ml/g)	(µl)	(µl)															
<del>1000</del>	P00915B1	1000	1ml	-					10ml								1ml		
---	BB1			-															
---	LCS1			1ml															
100-NW004	P0799i-10			-															
003	11			-															
100-NW001	16			-															
002	17			-															
003	18			-															
DD	19			-															
004	20			-															

Extr. Solvent ID: N010263

Sodium Sulfate Lot #: —

Reagents IDs: —

Final Solvent ID: —

Supervisor Init: DA

☐ GPC ☒ X ☐ Y ☐ Z

Container Lot #: —

Surrogate Added By: jm

☐ Silica

Prepared by: jm

Witnessed By: DA

☐ Florisil

Lot #: —

Comment Codes:

RE = Reextract

AL = 2nd Aliquot

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Prep Date/Time: 9/14/99 /       

Analysis: Pest

Matrix: *Soc*

Extr. Solvent ID: <u>N7255/N2528</u> Sodium Sulfate Lot #: <u>N29591</u> Final Solvent ID: <u>J</u> Supervisor Init: <u>QA</u> Container Lot #: <u>-</u> Surrogate Added By: <u>MR</u> Prepared by: <u>MR</u> Witnessed By: <u>QA</u>		*All volumes are in milliliters (ml) unless otherwise noted. Reagents IDs: <input type="checkbox"/> GPC    X    Y    Z <input type="checkbox"/> Silica <input type="checkbox"/> Florisil Lot #: _____		Comment Codes:  RE = Reextract AL = 2nd Aliquot
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## CEIMIC CORPORATION

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990799Analytical Method: 8081ASurr. Sol. ID: PW990830BPrep Date/Time: 9/14/99Client: Tetra Tech AWSExtraction Method: 3550AMS Sol. ID: PW990501AAnalysis: PestBlank ID: P0914-B3LCS ID: P0914-LCS3Add'l Spike ID: -Matrix: Soil

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION							INIT & DATE TRANSFER		COMMENTS	
Client ID	Ceimic ID	Vol/	Surr	MS	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	GC/MS			GC/LC					GC/ MS	GC/ LC	
		Wt (ml/g)	Vol (μl)	Vol (μl)						Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*			
	P0914-B3	30.0	20.0	-			-	-	4.2				2.2	5.2			1.2	T	9/15/99	
	-LCS3	30.6		1000																
102-SS-02	P0794-01	30.1		-	12															
102-SS-01	-02	30.4			13															
102-SS-01	-03	30.1			07															
100-SS-02	-04	30.2			17															
100-SS-01	-05	30.5			12															
	-05 NRES	30.4		1000																
	-05 NRES	30.0																		
100-SS-02	-06	30.0			16															
100-SS-03	-07	30.2			06															
100-SS-04	-08	30.4			14															
102-SS-05	-12	30.1			07															

\*All volumes are in milliliters (ml) unless otherwise noted.

Extr. Solvent ID: N12255/N2322P Sodium Sulfate Lot #: N2959

Reagents IDs:

Final Solvent ID: -Supervisor Init: MRContainer Lot #: -Surrogate Added By: MRPrepared by: MRWitnessed By: MR
☐ GPC ☒ Y ☐ Z  
☐ Silica  
☐ Florisil
Lot #: 9/21/99

Comment Codes:

RE = Reextract

AL 2nd "Squid"

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY**  
**ORGANOCHLORINE PESTICIDES**  
 by SW846 Method 8080

Client: Tetra Tech NUS  
 Client Sample ID: 100-SS-01  
 Date Sampled: 09/08/99  
 Date Sample Received: 09/09/99  
 Matrix: Soil  
 Percent Solids: 88

Laboratory ID: 990799-05MS  
 Date Sample Extracted: 09/14/99  
 Date Sample Analyzed: 09/29/99  
 Associated Method Blank: P0914-B3  
 Final Extract Volume (mL): 10.0  
 Dilution Factor: 1  
 Concentration in: ug/Kg (ppb) +

Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery(%)
alpha-BHC	19	ND	5.2	27
beta-BHC	19	ND	6.7	35
delta-BHC	19	ND	6.4	34
gamma-BHC	19	ND	6.0	32
Heptachlor	19	ND	6.0	32
Aldrin	19	ND	6.4	34
Heptachlor Epoxide	19	ND	6.7	35
Endosulfan I	19	ND	4.9	26
Dieldrin	19	ND	6.0	32
1,4'-DDE	19	ND	7.1	37
Endrin	19	ND	7.1	37
Endosulfan II	19	ND	6.4	34
1,4'-DDD	19	ND	5.6	29
Endosulfan Sulfate	19	ND	7.5	39
1,4'-DDT	19	ND	6.7	35
Methoxychlor	19	ND	8.2	43
Endrin Ketone	19	ND	7.1	37
Endrin Aldehyde	19	ND	7.1	37

Target Analyte	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
alpha-BHC	13	68	85.7	20	38 - 140
beta-BHC	13	68	64.0	20	32 - 132
delta-BHC	14	74	74.5	20	39 - 99
gamma-BHC	13	68	73.7	20	44 - 131
Heptachlor	12	63	66.7	20	49 - 116
Aldrin	14	74	74.5	20	39 - 130
Heptachlor Epoxide	14	74	70.5	20	44 - 123
Endosulfan I	9.9	52	67.6	20	36 - 130
Dieldrin	14	74	80.0	20	56 - 123
1,4'-DDE	16	84	77.1	20	47 - 128
Endrin	15	79	71.5	20	54 - 144
Endosulfan II	13	68	68.0	20	54 - 134
1,4'-DDD	13	68	79.6	20	52 - 123
Endosulfan Sulfate	15	79	66.7	20	56 - 130
1,4'-DDT	15	79	76.5	20	54 - 142
Methoxychlor	16	84	64.5	20	64 - 148
Endrin Ketone	14	74	65.4	20	58 - 136
Endrin Aldehyde	19	100	91.2	20	49 - 112

ND = Not detected  
 + Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	25	57	32 - 103
Decachlorobiphenyl	35	68	25 - 131

Reported by:                     

Approved by:

LABORATORY CONTROL SUMMARY  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS1

Matrix: Aqueous

CEMIS Project: 990799

Date Sample Analyzed: 09/29/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B1

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Alpha-BHC	0.50	0.39	78	49 - 150
Beta-BHC	0.50	0.39	78	60 - 135
Delta-BHC	0.50	0.40	80	32 - 140
Gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
1,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.31	62	69 - 137
1,4'-DDT	0.50	0.49	98	49 - 141
Endrin Sulfate	0.50	0.44	88	51 - 144
1,4'-DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

\* These limits are provided for advisory purposes.

Reported by: WGB

Approved by: RL



**LABORATORY CONTROL SUMMARY**  
**ORGANOCHLORINE PESTICIDES**  
 by SW846 Method 8080

Client: Tetra Tech NUS

CEMIS Project: 990799

Blank Spike ID: P0914-LCS3

Date Sample Analyzed: 09/29/99

Matrix: Soil

Date Sample Prepared: 09/14/99

Associated Method Blank: P0914-B3

Concentration in: ug/Kg (ppb) +

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Alpha-BHC	17	16	94	38 - 140
Beta-BHC	17	16	94	52 - 132
Gamma-BHC	17	17	100	39 - 99
Delta-BHC	17	16	94	44 - 131
Heptachlor	17	15	88	49 - 116
Dieldrin	17	17	100	39 - 130
Heptachlor Epoxide	17	17	100	44 - 123
Endosulfan I	17	12	71	56 - 130
Dieldrin	17	17	100	56 - 123
4'-DDE	17	19	112	47 - 128
Dieldrin	17	19	112	54 - 144
Endosulfan II	17	14	82	54 - 134
4'-DDD	17	19	112	52 - 123
Endosulfan Sulfate	17	19	112	56 - 130
4'-DDT	17	18	106	54 - 142
Heptachlor	17	19	112	64 - 148
Dieldrin Ketone	17	18	106	58 - 136
Dieldrin Aldehyde	17	21	124	49 - 112

ND = Not detected  
 - Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	32 - 103
Decachlorobiphenyl	93	25 - 131

\*These limits are provided for advisory purposes.

Reported by: MB

Approved by: HL

**METHOD BLANK**  
**ORGANOCHLORINE PESTICIDES**  
**by SW846 Method 8080**

Client: Tetra Tech NUS

Blank ID: P0915-B1

Matrix: Aqueous

CEMIS Project: 990799

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/29/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	0.050
Beta-BHC	ND	0.050
Gamma-BHC	ND	0.050
Delta-BHC	ND	0.050
Heptachlor	ND	0.050
Dieldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4'-DDE	ND	0.10
Dieldrin	ND	0.10
Endosulfan II	ND	0.10
4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4'-I	ND	0.10
Heptachlor	ND	0.50
Dieldrin Ketone	ND	0.10
Dieldrin Aldehyde	ND	0.10
Alpha-Chlordane	ND	0.050
Gamma-Chlordane	ND	0.050
Hexaphene	ND	5.0
Endosulfan-1016	ND	1.0
Endosulfan-1221	ND	2.0
Endosulfan-1232	ND	1.0
Endosulfan-1242	ND	1.0
Endosulfan-1248	ND	1.0
Endosulfan-1254	ND	1.0
Endosulfan-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
1,2-Dichloro-m-xylene	85	56 - 111
1,2-Dichlorobiphenyl	75	34 - 129

These limits are provided for advisory purposes.

Reported by: WUB

Approved by: AL

**METHOD BLANK**  
**ORGANOCHLORINE PESTICIDES**  
**by SW846 Method 8080**

Client: Tetra Tech NUS  
Blank ID: P0914-B3  
Matrix: Soil

CEMIS Project: 990799  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	1.7
beta-BHC	ND	1.7
delta-BHC	ND	1.7
gamma-BHC	ND	1.7
heptachlor	ND	1.7
Aldrin	ND	1.7
Heptachlor Epoxide	ND	1.7
Endosulfan I	ND	1.7
Dieldrin	ND	3.3
1,4'-DDE	ND	3.3
Endrin	ND	3.3
Endosulfan II	ND	3.3
1,4'-DDD	ND	3.3
Endosulfan Sulfate	ND	3.3
1,4'-DDT	ND	3.3
Methoxychlor	ND	17
Endrin Ketone	ND	3.3
Endrin Aldehyde	ND	3.3
alpha-Chlordane	ND	1.7
gamma-Chlordane	ND	1.7
Toxaphene	ND	165
Aroclor-1016	ND	33.0
Aroclor-1221	ND	66.0
Aroclor-1232	ND	33.0
Aroclor-1242	ND	33.0
Aroclor-1248	ND	33.0
Aroclor-1254	ND	33.0
Aroclor-1260	ND	33.0

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	63	25 - 131

\* These limits are provided for advisory purposes.

Reported by:                     NW3                    

Approved by:                     H

**TARGET COMPOUND LIST**  
**ORGANOCHLORINE PESTICIDES**  
**by SW846 Method 8080**

Client: Tetra Tech NUS  
 Client Sample ID: 100-MW-004-01  
 Date Sampled: 09/10/99  
 Date Sample Received: 09/11/99  
 Matrix: Aqueous

Laboratory ID: 990799-20  
 Date Sample Extracted: 09/15/99  
 Date Sample Analyzed: 09/29/99  
 Associated Method Blank: P0915-B1  
 Final Extract Volume (mL): 10.0  
 Dilution Factor: 1  
 Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
1,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
1,4'-DD	ND	0.10
Endosulfan Sulfate	ND	0.10
1,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
Alpha-Chlordane	ND	0.050
Gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
Tetrachloro-m-xylene	65	56 - 111
Decachlorobiphenyl	50	34 - 129

These limits are provided for advisory purposes.

Reported by:                     

Approved by:

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-DD-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990799-19  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
gamma-BHC	ND	0.050
delta-BHC	ND	0.050
theta-BHC	ND	0.050
heptachlor	ND	0.050
dieldrin	ND	0.050
heptachlor Epoxide	ND	0.050
endosulfan I	ND	0.050
dieldrin	ND	0.10
4'-DDE	ND	0.10
dieldrin	ND	0.10
endosulfan II	ND	0.10
4'-DDD	ND	0.10
endosulfan Sulfate	ND	0.10
4'-DDT	ND	0.10
methoxychlor	ND	0.50
dieldrin Ketone	ND	0.10
dieldrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
toxaphene	ND	5.0
croclor-1016	ND	1.0
croclor-1221	ND	2.0
croclor-1232	ND	1.0
croclor-1242	ND	1.0
croclor-1248	ND	1.0
croclor-1254	ND	1.0
croclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	60	34 - 129

\* These limits are provided for advisory purposes.

Reported by: MB

Approved by: HC

TARGET COMPOUND LIST  
GANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-003-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990799-18  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL):10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
gamma-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-chlor	ND	0.050
lindrin	ND	0.050
gamma-chlor Epoxide	ND	0.050
endosulfan I	ND	0.050
lindrin	ND	0.10
4'-DDE	ND	0.10
lindrin	ND	0.10
endosulfan II	ND	0.10
4'-DDD	ND	0.10
endo Sulfate	ND	0.10
4'-DDD	ND	0.10
methoxychlor	ND	0.50
lindrin Ketone	ND	0.10
lindrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
o-xaphene	ND	5.0
rochlor-1016	ND	1.0
rochlor-1221	ND	2.0
rochlor-1232	ND	1.0
rochlor-1242	ND	1.0
rochlor-1248	ND	1.0
rochlor-1254	ND	1.0
rochlor-1260	ND	1.0

0 = Not detected

### Surrogate Spike Recovery

Target Compound	Recovery(%)	QC Limits(%)*
trichloro-m-xylene	65	56 - 111
trichlorobiphenyl	60	34 - 129

These limits are provided for advisory purposes.

ported by: 1015

Approved by: \_\_\_\_\_

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-002-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990799-17  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
1,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1243	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: NUG

Approved by: KL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-MW-001-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990799-16  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
1,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
1,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
1,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
Tetrachloro-m-xylene	65	56 - 111
Decachlorobiphenyl	65	34 - 129

\* These limits are provided for advisory purposes.

Reported by:                      Approved by:



TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-04  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 92

Laboratory ID: 990799-14  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.8
Beta-BHC	ND	1.8
Delta-BHC	ND	1.8
Gamma-BHC	ND	1.8
Heptachlor	ND	1.8
Aldrin	ND	1.8
Heptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.6
1,4'-DDE	ND	3.6
Endrin	ND	3.6
Endosulfan II	ND	3.6
1,4'-DDD	ND	3.6
Endosulfan Sulfate	ND	3.6
1,4'-DDT	ND	3.6
Methoxychlor	ND	18
Endrin Ketone	ND	3.6
Endrin Aldehyde	ND	3.6
Alpha-Chlordane	ND	1.8
Gamma-Chlordane	ND	1.8
Toxaphene	ND	180
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	48	32 - 103
Decachlorobiphenyl	50	25 - 131

\* These limits are provided for advisory purposes.

Reported by: MB

Approved by: HL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-03  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 79

Laboratory ID: 990799-13  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	2.1
Beta-BHC	ND	2.1
Gamma-BHC	ND	2.1
Delta-BHC	ND	2.1
Heptachlor	ND	2.1
Aldrin	ND	2.1
Heptachlor Epoxide	ND	2.1
Endosulfan I	ND	2.1
Dieldrin	ND	4.2
1,4'-DDE	ND	4.2
Endrin	ND	4.2
Endosulfan II	ND	4.2
1,4'-DDT	ND	4.2
Endosulfan Sulfate	ND	4.2
1,4'-DDT	ND	4.2
Methoxychlor	ND	21
Endrin Ketone	ND	4.2
Endrin Aldehyde	ND	4.2
Alpha-Chlordane	ND	2.1
Gamma-Chlordane	ND	2.1
Toxaphene	ND	210
Aroclor-1016	ND	42.0
Aroclor-1221	ND	84.0
Aroclor-1232	ND	42.0
Aroclor-1242	ND	42.0
Aroclor-1248	ND	42.0
Aroclor-1254	ND	42.0
Aroclor-1260	ND	42.0

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	32 - 103
Decachlorobiphenyl	57	25 - 131

\* These limits are provided for advisory purposes.

Reported by: WJ

Approved by: KL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-05  
Date Sampled: 09/09/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 93

Laboratory ID: 990799-12  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.8
Beta-BHC	ND	1.8
Delta-BHC	ND	1.8
Gamma-BHC	ND	1.8
Heptachlor	ND	1.8
Dieldrin	ND	1.8
Heptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.6
1,4'-DDE	ND	3.6
Dieldrin	ND	3.6
Endosulfan II	ND	3.6
1,4'-DDD	ND	3.6
Endosulfan Sulfate	ND	3.6
1,4'-DDT	ND	3.6
Methoxychlor	ND	18
Dieldrin Ketone	ND	3.6
Dieldrin Aldehyde	ND	3.6
Alpha-Chlordane	ND	1.8
Gamma-Chlordane	ND	1.8
Toxaphene	ND	180
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1248	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected  
= Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	57	32 - 103
Decachlorobiphenyl	60	25 - 131

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-MW-003-01  
Date Sampled: 09/09/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990799-11  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	40	34 - 129

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-MW-004-01  
Date Sampled: 09/09/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990799-10  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL):10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
gamma-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
gamma-chlor	ND	0.050
delta-chlor	ND	0.050
gamma-chlor Epoxide	ND	0.050
gamma-sulfan I	ND	0.050
delta-chlor	ND	0.10
gamma-DDE	ND	0.10
delta-chlor	ND	0.10
gamma-sulfan II	ND	0.10
gamma-DDD	ND	0.10
gamma-sulfan Sulfate	ND	0.10
gamma-DDT	ND	0.10
gamma-chlor	ND	0.50
delta-chlor Ketone	ND	0.10
delta-chlor Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
hexaphene	ND	5.0
croclor-1016	ND	1.0
croclor-1221	ND	2.0
croclor-1232	ND	1.0
croclor-1242	ND	1.0
croclor-1248	ND	1.0
croclor-1254	ND	1.0
croclor-1260	ND	1.0


ND = Not detected

### Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: \_\_\_\_\_

Approved by: 

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-04  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 83

Laboratory ID: 990799-08  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	2.0
Beta-BHC	ND	2.0
Gamma-BHC	ND	2.0
Heptachlor	ND	2.0
Aldrin	ND	2.0
Heptachlor Epoxide	ND	2.0
Endosulfan I	ND	2.0
Dieldrin	ND	4.0
1,4'-DDE	ND	4.0
Endrin	ND	4.0
Endosulfan II	ND	4.0
1,4'-DDT	ND	4.0
Endosulfan Sulfate	ND	4.0
1,4'-DDT	ND	4.0
Methoxychlor	ND	20
Endrin Ketone	ND	4.0
Endrin Aldehyde	ND	4.0
Alpha-Chlordane	ND	2.0
Gamma-Chlordane	ND	2.0
Toxaphene	ND	198
Aroclor-1016	ND	39.6
Aroclor-1221	ND	79.2
Aroclor-1232	ND	39.6
Aroclor-1242	ND	39.6
Aroclor-1248	ND	39.6
Aroclor-1254	ND	39.6
Aroclor-1260	ND	39.6

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	48	32 - 103
Decachlorobiphenyl	55	25 - 131

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-03  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 94

Laboratory ID: 990799-07  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.8
Beta-BHC	ND	1.8
Gamma-BHC	ND	1.8
Delta-BHC	ND	1.8
Heptachlor	ND	1.8
Aldrin	ND	1.8
Heptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.5
1,4'-DDE	ND	3.5
Endrin	ND	3.5
Endosulfan II	ND	3.5
1,4'-DDD	ND	3.5
Endosulfan Sulfate	ND	3.5
1,4'-DDT	ND	3.5
Methoxychlor	ND	18
Endrin Ketone	ND	3.5
Endrin Aldehyde	ND	3.5
Alpha-Chlordane	ND	1.8
Gamma-Chlordane	ND	1.8
Toxaphene	ND	175
Aroclor-1016	ND	35.0
Aroclor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	32 - 103
Decachlorobiphenyl	60	25 - 131

\* These limits are provided for advisory purposes.

Reported by: W3

Approved by: HL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-22-DD  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 84

Laboratory ID: 990799-06  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	2.0
Beta-BHC	ND	2.0
Delta-BHC	ND	2.0
Gamma-BHC	ND	2.0
Heptachlor	ND	2.0
Aldrin	ND	2.0
Heptachlor Epoxide	ND	2.0
Endosulfan I	ND	2.0
Dieldrin	ND	4.0
1,4'-DDE	ND	4.0
Endrin	ND	4.0
Endosulfan II	ND	4.0
1,4'-DDT	ND	4.0
Endosulfan Sulfate	ND	4.0
1,4'-DDT	ND	4.0
Methoxychlor	ND	20
Endrin Ketone	ND	4.0
Endrin Aldehyde	ND	4.0
Alpha-Chlordane	ND	2.0
Gamma-Chlordane	ND	2.0
Toxaphene	ND	199
Aroclor-1016	ND	39.7
Aroclor-1221	ND	79.4
Aroclor-1232	ND	39.7
Aroclor-1242	ND	39.7
Aroclor-1248	ND	39.7
Aroclor-1254	ND	39.7
Aroclor-1260	ND	39.7

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	50	32 - 103
Decachlorobiphenyl	57	25 - 131

\* These limits are provided for advisory purposes.

Reported by: 1003

Approved by: 18



TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-01  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 88

Laboratory ID: 990799-05  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb)+

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.9
Beta-BHC	ND	1.9
Delta-BHC	ND	1.9
Gamma-BHC	ND	1.9
Heptachlor	ND	1.9
Aldrin	ND	1.9
Heptachlor Epoxide	ND	1.9
Endosulfan I	ND	1.9
Dieldrin	ND	3.7
1,4'-DDE	ND	3.7
Endrin	ND	3.7
Endosulfan II	ND	3.7
1,4'-DDD	ND	3.7
Endosulfan Sulfate	ND	3.7
1,4'-DDT	ND	3.7
Methoxychlor	ND	1.9
Endrin Ketone	ND	3.7
Endrin Aldehyde	ND	3.7
Alpha-Chlordane	ND	1.9
Gamma-Chlordane	ND	1.9
Toxaphene	ND	187
Aroclor-1016	ND	37.3
Aroclor-1221	ND	74.6
Aroclor-1232	ND	37.3
Aroclor-1242	ND	37.3
Aroclor-1248	ND	37.3
Aroclor-1254	ND	37.3
Aroclor-1260	ND	37.3

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	32 - 103
Decachlorobiphenyl	123	25 - 131

\* These limits are provided for advisory purposes.

Reported by:     RUS    

Approved by:     HL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 100-SS-02  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 83

Laboratory ID: 990799-04  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	2.0
Beta-BHC	ND	2.0
Gamma-BHC	ND	2.0
Delta-BHC	ND	2.0
Heptachlor	ND	2.0
Aldrin	ND	2.0
Heptachlor Epoxide	ND	2.0
Endosulfan I	ND	2.0
Dieldrin	ND	4.0
4'-DDE	ND	4.0
Endrin	ND	4.0
Endosulfan II	ND	4.0
4'-D	ND	4.0
Endo. n Sulfate	ND	4.0
4'-DDT	ND	4.0
Methoxychlor	ND	20
Endrin Ketone	ND	4.0
Endrin Aldehyde	ND	4.0
Alpha-Chlordane	ND	2.0
Gamma-Chlordane	ND	2.0
Dioxaphene	ND	200
Aroclor-1016	ND	39.9
Aroclor-1221	ND	79.8
Aroclor-1232	ND	39.9
Aroclor-1242	ND	39.9
Aroclor-1248	ND	39.9
Aroclor-1254	ND	39.9
Aroclor-1260	ND	39.9

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery (%)	QC Limits (%)*
Tetrachloro-m-xylene	85	32 - 103
Decachlorobiphenyl	90	25 - 131

\* These limits are provided for advisory purposes.

Reported by: 103

Approved by: HL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-SU-01  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 93

Laboratory ID: 990799-03  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Alpha-BHC	ND	1.8
Beta-BHC	ND	1.8
Delta-BHC	ND	1.8
Gamma-BHC	ND	1.8
Heptachlor	ND	1.8
Aldrin	ND	1.8
Heptachlor Epoxide	ND	1.8
Endosulfan I	ND	1.8
Dieldrin	ND	3.6
1,4'-DDE	ND	3.6
Endrin	ND	3.6
Endosulfan II	ND	3.6
1,4'-DDD	ND	3.6
Endosulfan Sulfate	ND	3.6
1,4'-DDT	ND	3.6
Methoxychlor	ND	18
Endrin Ketone	ND	3.6
Endrin Aldehyde	ND	3.6
Alpha-Chlordane	ND	1.8
Gamma-Chlordane	ND	1.8
Toxaphene	ND	180
Aroclor-1016	ND	36.0
Aroclor-1221	ND	72.0
Aroclor-1232	ND	36.0
Aroclor-1242	ND	36.0
Aroclor-1243	ND	36.0
Aroclor-1254	ND	36.0
Aroclor-1260	ND	36.0

ND = Not detected  
+ Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	78	32 - 103
Decachlorobiphenyl	85	25 - 131

\* These limits are provided for advisory purposes.

Reported by:                     

Approved by:

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-01  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 87

Laboratory ID: 990799-02  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	1.9
beta-BHC	ND	1.9
gamma-BHC	ND	1.9
delta-BHC	ND	1.9
alpha-chlor	ND	1.9
beta-chlor	ND	1.9
gamma-chlor	ND	1.9
delta-chlor	ND	1.9
alpha-chlor Epoxide	ND	1.9
beta-chlor Epoxide	ND	1.9
gamma-chlor Epoxide	ND	1.9
delta-chlor Epoxide	ND	1.9
alpha-DDE	ND	3.8
beta-DDE	ND	3.8
gamma-DDE	ND	3.8
delta-DDE	ND	3.8
alpha-DDT	ND	3.8
beta-DDT	ND	3.8
gamma-DDT	ND	3.8
delta-DDT	ND	3.8
alpha-chlorophenyl	ND	19
beta-chlorophenyl	ND	3.8
gamma-chlorophenyl	ND	3.8
delta-chlorophenyl	ND	3.8
alpha-chlorophenyl	ND	1.9
beta-chlorophenyl	ND	1.9
gamma-chlorophenyl	ND	189
delta-chlorophenyl	ND	37.8
alpha-chlorophenyl	ND	75.6
beta-chlorophenyl	ND	37.8
gamma-chlorophenyl	ND	37.8
delta-chlorophenyl	ND	37.8
alpha-chlorophenyl	ND	37.8
beta-chlorophenyl	ND	37.8
gamma-chlorophenyl	ND	37.8
delta-chlorophenyl	ND	37.8

D = Not detected  
Dry weight basis.

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)
alpha-chlorophenyl	48	32 - 103
beta-chlorophenyl	57	25 - 131

These limits are provided for advisory purposes.

Reported by: W9

Approved by: KL

TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080

Client: Tetra Tech NUS  
Client Sample ID: 102-SS-02  
Date Sampled: 09/08/99  
Date Sample Received: 09/09/99  
Matrix: Soil  
Percent Solids: 88

Laboratory ID: 990799-01  
Date Sample Extracted: 09/14/99  
Date Sample Analyzed: 09/29/99  
Associated Method Blank: P0914-B3  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/Kg (ppb) ÷

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	1.9
beta-BHC	ND	1.9
gamma-BHC	ND	1.9
d-limonene-BHC	ND	1.9
Dieldrin	ND	1.9
Endosulfan I	ND	1.9
Endosulfan II	ND	1.9
Heptachlor Epoxide	ND	1.9
Heptachlor	ND	1.9
DDT	ND	1.9
DDD	ND	1.9
Sulfone	ND	1.9
Chlordane	ND	1.9
Bisphenol A	ND	1.9
Polychlorinated Biphenyls (PCBs)	ND	1.9
Polycyclic Aromatic Hydrocarbons (PAHs)	ND	1.9
Organophosphorus Pesticides	ND	1.9
Neurotoxicants	ND	1.9
Heavy Metals	ND	1.9
Pesticide Residues	ND	1.9
Pharmaceuticals	ND	1.9
Industrial Chemicals	ND	1.9
Environmental Contaminants	ND	1.9
Food Additives	ND	1.9
Drugs	ND	1.9
Toxins	ND	1.9
Microbial Contaminants	ND	1.9
Nutrients	ND	1.9
Vitamins	ND	1.9
Minerals	ND	1.9
Trace Elements	ND	1.9
Isotopes	ND	1.9
Enzymes	ND	1.9
Hormones	ND	1.9
Antibiotics	ND	1.9
Fertilizers	ND	1.9
Pesticides	ND	1.9
Insecticides	ND	1.9
Fungicides	ND	1.9
Herbicides	ND	1.9
Rodenticides	ND	1.9
Molluscicides	ND	1.9
Nematicides	ND	1.9
Acaricides	ND	1.9
Insect Growth Regulators	ND	1.9
Plant Hormones	ND	1.9
Animal Hormones	ND	1.9
Human Hormones	ND	1.9
Plant Alkaloids	ND	1.9
Animal Alkaloids	ND	1.9
Human Alkaloids	ND	1.9
Plant Steroids	ND	1.9
Animal Steroids	ND	1.9
Human Steroids	ND	1.9
Plant Glycosides	ND	1.9
Animal Glycosides	ND	1.9
Human Glycosides	ND	1.9
Plant Phenols	ND	1.9
Animal Phenols	ND	1.9
Human Phenols	ND	1.9
Plant Terpenes	ND	1.9
Animal Terpenes	ND	1.9
Human Terpenes	ND	1.9
Plant Flavonoids	ND	1.9
Animal Flavonoids	ND	1.9
Human Flavonoids	ND	1.9
Plant Saponins	ND	1.9
Animal Saponins	ND	1.9
Human Saponins	ND	1.9
Plant Tannins	ND	1.9
Animal Tannins	ND	1.9
Human Tannins	ND	1.9
Plant Lignans	ND	1.9
Animal Lignans	ND	1.9
Human Lignans	ND	1.9
Plant Coumarins	ND	1.9
Animal Coumarins	ND	1.9
Human Coumarins	ND	1.9
Plant Isoflavones	ND	1.9
Animal Isoflavones	ND	1.9
Human Isoflavones	ND	1.9
Plant Stilbenes	ND	1.9
Animal Stilbenes	ND	1.9
Human Stilbenes	ND	1.9
Plant Anthraquinones	ND	1.9
Animal Anthraquinones	ND	1.9
Human Anthraquinones	ND	1.9
Plant Naphthalenes	ND	1.9
Animal Naphthalenes	ND	1.9
Human Naphthalenes	ND	1.9
Plant Indoles	ND	1.9
Animal Indoles	ND	1.9
Human Indoles	ND	1.9
Plant Pyrazines	ND	1.9
Animal Pyrazines	ND	1.9
Human Pyrazines	ND	1.9
Plant Furanones	ND	1.9
Animal Furanones	ND	1.9
Human Furanones	ND	1.9
Plant Thiophenes	ND	1.9
Animal Thiophenes	ND	1.9
Human Thiophenes	ND	1.9
Plant Pyrroles	ND	1.9
Animal Pyrroles	ND	1.9
Human Pyrroles	ND	1.9
Plant Imidazoles	ND	1.9
Animal Imidazoles	ND	1.9
Human Imidazoles	ND	1.9
Plant Oxadiazoles	ND	1.9
Animal Oxadiazoles	ND	1.9
Human Oxadiazoles	ND	1.9
Plant Thiadiazoles	ND	1.9
Animal Thiadiazoles	ND	1.9
Human Thiadiazoles	ND	1.9
Plant Quinolines	ND	1.9
Animal Quinolines	ND	1.9
Human Quinolines	ND	1.9
Plant Isoquinolines	ND	1.9
Animal Isoquinolines	ND	1.9
Human Isoquinolines	ND	1.9
Plant Acridines	ND	1.9
Animal Acridines	ND	1.9
Human Acridines	ND	1.9
Plant Fluoranthenes	ND	1.9
Animal Fluoranthenes	ND	1.9
Human Fluoranthenes	ND	1.9
Plant Benzo[a]pyrenes	ND	1.9
Animal Benzo[a]pyrenes	ND	1.9
Human Benzo[a]pyrenes	ND	1.9
Plant Chrysenes	ND	1.9
Animal Chrysenes	ND	1.9
Human Chrysenes	ND	1.9
Plant Benzofluoranthenes	ND	1.9
Animal Benzofluoranthenes	ND	1.9
Human Benzofluoranthenes	ND	1.9
Plant Dibenzo[a,h]anthracenes	ND	1.9
Animal Dibenzo[a,h]anthracenes	ND	1.9
Human Dibenzo[a,h]anthracenes	ND	1.9
Plant Triphenylenes	ND	1.9
Animal Triphenylenes	ND	1.9
Human Triphenylenes	ND	1.9
Plant Indeno[1,2,3-cd]pyrene	ND	1.9
Animal Indeno[1,2,3-cd]pyrene	ND	1.9</

D = Not detected  
- Dry weight basis.

### Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
tetrachloro-m-xylene	45	32 - 103
decachlorobiphenyl	57	25 - 131

These limits are provided for advisory purposes.

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

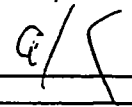
Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Methyl Chloride	ND	1
Ethyl Chloride	ND	1
Methylene Chloride	ND	1
Acetone	8	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: FB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-01

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	95	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	109	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: 

Approved by: 

CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Methyl Chloride	ND	1
Ethanol	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: ER091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-02

Date Sample Analyzed: 09/23/99

Associated Method Blank: V150923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	2	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	97	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	110	75 - 125
Bromofluorobenzene	109	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Bromoethane	ND	1
Methylene Chloride	ND	1
Acetone	10	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB091099-01

Date Sampled: 09/10/99

Date Sample Received: 09/11/99

Matrix: Aqueous

Laboratory ID: 990807-03

Date Sample Analyzed: 09/23/99

Associated Method Blank: V120923-B1

Dilution Factor: 1

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	100	62 - 139
Dibromofluoromethane	98	75 - 125
Toluene-d8	107	75 - 125
Bromofluorobenzene	110	75 - 125

Reported by: 

Approved by: 

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990807

Blank Spike ID: V150923-LCS

Date Sample Analyzed: 09/23/99

Matrix: Aqueous

Associated Method Blank: V150923-B1

Concentration:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	5	100	68 - 124
Trichloroethene	5	5	97	75 - 120
Benzene	5	5	96	78 - 127
Toluene	5	5	94	71 - 132
Chlorobenzene	5	5	98	77 - 128

\*These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	93	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	105	75 - 125
Bromofluorobenzene	115	75 - 125

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

## **SEMIVOLATILE ORGANIC ANALYSES**

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----Phenol	5	U
111-44-4-----bis(2-Chloroethyl) Ether	5	U
95-57-8-----2-Chlorophenol	5	U
541-73-1-----1,3-Dichlorobenzene	5	U
106-46-7-----1,4-Dichlorobenzene	5	U
100-51-6-----Benzyl Alcohol	5	U
95-50-1-----1,2-Dichlorobenzene	5	U
95-48-7-----2-Methylphenol	5	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----4-Methylphenol	5	U
621-64-7-----N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----Hexachloroethane	5	U
98-95-3-----Nitrobenzene	5	U
78-59-1-----Isophorone	5	U
88-75-5-----2-Nitrophenol	5	U
105-67-9-----2,4-Dimethylphenol	5	U
65-85-0-----Benzoic Acid	5	U
111-91-1-----bis(2-Chloroethoxy)Methane	5	U
120-83-2-----2,4-Dichlorophenol	5	U
120-82-1-----1,2,4-Trichlorobenzene	5	U
91-20-3-----Naphthalene	5	U
106-47-8-----4-Chloroaniline	5	U
87-68-3-----Hexachlorobutadiene	5	U
59-50-7-----4-Chloro-3-Methylphenol	5	U
91-57-6-----2-Methylnaphthalene	5	U
77-47-4-----Hexachlorocyclopentadiene	5	U
88-06-2-----2,4,6-Trichlorophenol	5	U
95-95-4-----2,4,5-Trichlorophenol	10	U
91-58-7-----2-Chloronaphthalene	5	U
88-74-4-----2-Nitroaniline	10	U
131-11-3-----Dimethyl Phthalate	5	U
208-96-8-----Acenaphthylene	5	U
606-20-2-----2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW997

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	5	U
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: 990807-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996

Level: (low/med) LOW Date Received: 09/11/99

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy)Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U



1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Matrix: (soil/water) WATER Lab Sample ID: 990807-01  
 Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW996  
 Level: (low/med) LOW Date Received: 09/11/99  
 % Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99  
 Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/23/99  
 Injection Volume: 2.0 (uL) Dilution Factor: 1.0  
 GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND		
99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	5	U
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo(a)Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	1	BJ
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo(b)Fluoranthene	5	U
207-08-9-----	Benzo(k)Fluoranthene	5	U
50-32-8-----	Benzo(a)Pyrene	5	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	5	U
53-70-3-----	Dibenzo(a,h)Anthracene	5	U
191-24-2-----	Benzo(g,h,i)Perylene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

I Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

108-95-2-----	Phenol	18	
111-44-4-----	bis(2-Chloroethyl) Ether	27	
95-57-8-----	2-Chlorophenol	27	
541-73-1-----	1,3-Dichlorobenzene	25	
106-46-7-----	1,4-Dichlorobenzene	24	
100-51-6-----	Benzyl Alcohol	32	
95-50-1-----	1,2-Dichlorobenzene	25	
95-48-7-----	2-Methylphenol	27	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	29	
106-44-5-----	4-Methylphenol	28	
621-64-7-----	N-Nitroso-Di-n-Propylamine	29	
67-72-1-----	Hexachloroethane	24	
98-95-3-----	Nitrobenzene	30	
78-59-1-----	Isophorone	31	
88-75-5-----	2-Nitrophenol	32	
105-67-9-----	2,4-Dimethylphenol	22	
65-85-0-----	Benzoic Acid	29	
111-91-1-----	bis(2-Chloroethoxy) Methane	32	
120-83-2-----	2,4-Dichlorophenol	31	
120-82-1-----	1,2,4-Trichlorobenzene	27	
91-20-3-----	Naphthalene	29	
106-47-8-----	4-Chloroaniline	26	
87-68-3-----	Hexachlorobutadiene	28	
59-50-7-----	4-Chloro-3-Methylphenol	34	
91-57-6-----	2-Methylnaphthalene	32	
77-47-4-----	Hexachlorocyclopentadiene	25	
88-06-2-----	2,4,6-Trichlorophenol	35	
95-95-4-----	2,4,5-Trichlorophenol	34	
91-58-7-----	2-Chloronaphthalene	32	
88-74-4-----	2-Nitroaniline	35	
131-11-3-----	Dimethyl Phthalate	34	
208-96-8-----	Acenaphthylene	33	
606-20-2-----	2,6-Dinitrotoluene	37	

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SLCSDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-LCS6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW976

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

99-09-2-----	3-Nitroaniline	34	
83-32-9-----	Acenaphthene	33	
51-28-5-----	2,4-Dinitrophenol	33	
100-02-7-----	4-Nitrophenol	22	
132-64-9-----	Dibenzofuran	34	
121-14-2-----	2,4-Dinitrotoluene	38	
84-66-2-----	Diethylphthalate	34	
7005-72-3-----	4-Chlorophenyl-phenylether	35	
86-73-7-----	Fluorene	35	
100-01-6-----	4-Nitroaniline	35	
534-52-1-----	4,6-Dinitro-2-Methylphenol	39	
86-30-6-----	N-Nitrosodiphenylamine (1)	37	
101-55-3-----	4-Bromophenyl-phenylether	37	
118-74-1-----	Hexachlorobenzene	38	
87-86-5-----	Pentachlorophenol	33	
85-01-8-----	Phenanthrene	37	
120-12-7-----	Anthracene	37	
86-74-8-----	Carbazole	38	
84-74-2-----	Di-n-Butylphthalate	39	B
206-44-0-----	Fluoranthene	39	
129-00-0-----	Pyrene	36	
85-68-7-----	Butylbenzylphthalate	36	
91-94-1-----	3,3'-Dichlorobenzidine	30	
56-55-3-----	Benzo (a) Anthracene	38	
218-01-9-----	Chrysene	37	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	37	B
117-84-0-----	Di-n-Octyl Phthalate	38	
205-99-2-----	Benzo (b) Fluoranthene	36	
207-08-9-----	Benzo (k) Fluoranthene	40	
50-32-8-----	Benzo (a) Pyrene	37	
193-39-5-----	Indeno (1,2,3-cd) Pyrene	34	
53-70-3-----	Dibenzo (a,h) Anthracene	34	
191-24-2-----	Benzo (g,h,i) Perylene	33	

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

108-95-2-----	Phenol	5	U
111-44-4-----	bis(2-Chloroethyl) Ether	5	U
95-57-8-----	2-Chlorophenol	5	U
541-73-1-----	1,3-Dichlorobenzene	5	U
106-46-7-----	1,4-Dichlorobenzene	5	U
100-51-6-----	Benzyl Alcohol	5	U
95-50-1-----	1,2-Dichlorobenzene	5	U
95-48-7-----	2-Methylphenol	5	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	5	U
106-44-5-----	4-Methylphenol	5	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	5	U
67-72-1-----	Hexachloroethane	5	U
98-95-3-----	Nitrobenzene	5	U
78-59-1-----	Isophorone	5	U
88-75-5-----	2-Nitrophenol	5	U
105-67-9-----	2,4-Dimethylphenol	5	U
65-85-0-----	Benzoic Acid	5	U
111-91-1-----	bis(2-Chloroethoxy) Methane	5	U
120-83-2-----	2,4-Dichlorophenol	5	U
120-82-1-----	1,2,4-Trichlorobenzene	5	U
91-20-3-----	Naphthalene	5	U
106-47-8-----	4-Chloroaniline	5	U
87-68-3-----	Hexachlorobutadiene	5	U
59-50-7-----	4-Chloro-3-Methylphenol	5	U
91-57-6-----	2-Methylnaphthalene	5	U
77-47-4-----	Hexachlorocyclopentadiene	5	U
88-06-2-----	2,4,6-Trichlorophenol	5	U
95-95-4-----	2,4,5-Trichlorophenol	10	U
91-58-7-----	2-Chloronaphthalene	5	U
88-74-4-----	2-Nitroaniline	10	U
131-11-3-----	Dimethyl Phthalate	5	U
208-96-8-----	Acenaphthylene	5	U
606-20-2-----	2,6-Dinitrotoluene	5	U

1X  
ORGANICS ANALYSIS DATA SHEET

SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

Matrix: (soil/water) WATER Lab Sample ID: S0915-B6

Sample wt/vol: 1000 (g/mL) ML Lab File ID: DW975

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 09/15/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/22/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

99-09-2-----	3-Nitroaniline	10	U
83-32-9-----	Acenaphthene	5	U
51-28-5-----	2,4-Dinitrophenol	10	U
100-02-7-----	4-Nitrophenol	10	U
132-64-9-----	Dibenzofuran	5	U
121-14-2-----	2,4-Dinitrotoluene	5	U
84-66-2-----	Diethylphthalate	5	U
7005-72-3-----	4-Chlorophenyl-phenylether	5	U
86-73-7-----	Fluorene	5	U
100-01-6-----	4-Nitroaniline	10	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	10	U
86-30-6-----	N-Nitrosodiphenylamine (1)	5	U
101-55-3-----	4-Bromophenyl-phenylether	5	U
118-74-1-----	Hexachlorobenzene	5	U
87-86-5-----	Pentachlorophenol	10	U
85-01-8-----	Phenanthrene	5	U
120-12-7-----	Anthracene	5	U
86-74-8-----	Carbazole	5	U
84-74-2-----	Di-n-Butylphthalate	1	J
206-44-0-----	Fluoranthene	5	U
129-00-0-----	Pyrene	5	U
85-68-7-----	Butylbenzylphthalate	5	U
91-94-1-----	3,3'-Dichlorobenzidine	5	U
56-55-3-----	Benzo (a) Anthracene	5	U
218-01-9-----	Chrysene	5	U
117-81-7-----	bis (2-Ethylhexyl) Phthalate	2	J
117-84-0-----	Di-n-Octyl Phthalate	5	U
205-99-2-----	Benzo (b) Fluoranthene	5	U
207-08-9-----	Benzo (k) Fluoranthene	5	U
50-32-8-----	Benzo (a) Pyrene	5	U
193-39-5-----	Indeno (1,2,3-cd) Pyrene	5	U
53-70-3-----	Dibenzo (a,h) Anthracene	5	U
191-24-2-----	Benzo (g,h,i) Perylene	5	U

2C  
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH

L. Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
01	ER091099-01	69	67	81	20	31	69	53	65	0
02	FB091099-01	79	74	77	28	40	79	61	74	0
03	SLCSDH	64	67	76	35	44	77	52	52	0
04	SBLKDH	65	66	81	26	39	72	54	58	0

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 35-114)  
 S2 (FBP) = 2-Fluorobiphenyl ( 43-116)  
 S3 (TPH) = Terphenyl-d14 ( 33-141)  
 S4 (PHL) = Phenol-d5 ( 10-100)  
 S5 (2FP) = 2-Fluorophenol ( 21-125)  
 S6 (TBP) = 2,4,6-Tribromophenol ( 25-134)  
 S7 (2CP) = 2-Chlorophenol-d4 ( 33-110) (advisory)  
 S8 (DCB) = 1,2-Dichlorobenzene-d4 ( 16-110) (advisory)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

## Laboratory Control Spike Summary

LAB SAMP ID S0915-LCS6  
LAB QC ID                     SAMPLE ID SLCSDH  
TYPE EPADATA RELEASE AUTHORIZED BY                     FILE NAME DW976  
TUNE DW967  
STANDARD DW968  
BLANK DW975  
TAPE/POS           RECEIVED                       
EXTRACTED 09/15/99  
ANALYZED 09/22/99 20:05  
VERIFIED                     METHOD CLP  
FRACTION BNA  
INST MS4  
ANALYST                       
BOTTLE                     % MOISTURE            pH             
(DECANTED)            CLEANUP             
DIL FACTOR 1.000 EXTRACT METHOD CLLLEVEL LOW  
MATRIX WATER  
UNITS ug/LSAMPLE:  
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C315	108-95-2	Phenol	50.00	18.36	36.72
C325	111-44-4	bis(2-Chloroethyl) Ether	50.00	27.04	54.08
C330	95-57-8	2-Chlorophenol	50.00	27.06	54.12
C335	541-73-1	1,3-Dichlorobenzene	50.00	25.03	50.06
C340	106-46-7	1,4-Dichlorobenzene	50.00	23.81	47.62
C345	100-51-6	Benzyl Alcohol	50.00	31.77	63.54
C350	95-50-1	1,2-Dichlorobenzene	50.00	25.09	50.18
C355	95-48-7	2-Methylphenol	50.00	27.15	54.30
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	29.28	58.56
C365	106-44-5	4-Methylphenol	50.00	28.22	56.44
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	29.38	58.76
C375	67-72-1	Hexachloroethane	50.00	23.88	47.76
C410	98-95-3	Nitrobenzene	50.00	29.59	59.18
C415	78-59-1	Isophorone	50.00	31.44	62.88
C420	88-75-5	2-Nitrophenol	50.00	31.66	63.32
C425	105-67-9	2,4-Dimethylphenol	50.00	21.65	43.30
C430	65-85-0	Benzoic Acid	100.0	29.25	29.25
C435	111-91-1	bis(2-Chloroethoxy) Methane	50.00	32.44	64.88
C440	120-83-2	2,4-Dichlorophenol	50.00	30.81	61.62
C445	120-82-1	1,2,4-Trichlorobenzene	50.00	27.29	54.58
C450	91-20-3	Naphthalene	50.00	29.16	58.32
C455	106-47-8	4-Chloroaniline	50.00	25.87	51.74
C460	87-68-3	Hexachlorobutadiene	50.00	27.54	55.08
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	34.45	68.90
C470	91-57-6	2-Methylnaphthalene	50.00	32.25	64.50
C510	77-47-4	Hexachlorocyclopentadiene	50.00	25.25	50.50
C515	88-06-2	2,4,6-Trichlorophenol	50.00	34.76	69.52
C520	95-95-4	2,4,5-Trichlorophenol	50.00	33.85	67.70
C525	91-58-7	2-Chloronaphthalene	50.00	32.26	64.52
C530	88-74-4	2-Nitroaniline	50.00	34.98	69.96
C535	131-11-3	Dimethyl Phthalate	50.00	34.19	68.38

## Laboratory Control Spike Summary

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C540	208-96-8	Acenaphthylene	50.00	32.78	65.56
C543	606-20-2	2,6-Dinitrotoluene	50.00	36.77	73.54
C545	99-09-2	3-Nitroaniline	50.00	34.16	68.32
C550	83-32-9	Acenaphthene	50.00	33.32	66.64
C555	51-28-5	2,4-Dinitrophenol	50.00	32.69	65.38
C560	100-02-7	4-Nitrophenol	50.00	22.39	44.78
C565	132-64-9	Dibenzofuran	50.00	34.42	68.84
C570	121-14-2	2,4-Dinitrotoluene	50.00	38.31	76.62
C580	84-66-2	Diethylphthalate	50.00	34.16	68.32
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	34.63	69.26
C590	86-73-7	Fluorene	50.00	34.85	69.70
C595	100-01-6	4-Nitroaniline	50.00	34.62	69.24
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	38.99	77.98
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	36.69	73.38
C625	101-55-3	4-Bromophenyl-phenylether	50.00	36.63	73.26
C630	118-74-1	Hexachlorobenzene	50.00	37.54	75.08
C635	87-86-5	Pentachlorophenol	50.00	32.96	65.92
C640	85-01-8	Phenanthrene	50.00	36.90	73.80
C645	120-12-7	Anthracene	50.00	36.51	73.02
C646	86-74-8	Carbazole	50.00	37.84	75.68
C650	84-74-2	Di-n-Butylphthalate	50.00	38.56	77.12
55	206-44-0	Fluoranthene	50.00	38.99	77.98
15	129-00-0	Pyrene	50.00	36.00	72.00
C720	85-68-7	Butylbenzylphthalate	50.00	35.96	71.92
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	29.56	59.12
C730	56-55-3	Benzo(a)Anthracene	50.00	37.52	75.04
C740	218-01-9	Chrysene	50.00	37.05	74.10
C745	117-81-7	bis(2-Ethylhexyl) Phthalate	50.00	36.58	73.16
C760	117-84-0	Di-n-Octyl Phthalate	50.00	38.23	76.46
C765	205-99-2	Benzo(b)Fluoranthene	50.00	35.63	71.26
C770	207-08-9	Benzo(k)Fluoranthene	50.00	39.94	79.88
C775	50-32-8	Benzo(a)Pyrene	50.00	36.68	73.36
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	33.85	67.70
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	34.15	68.30
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	33.41	66.82



4B  
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLKDH

Lab Name: CEIMIC CORP Contract: TETRA TECH  
Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
Lab File ID: DW975 Lab Sample ID: S0915-B6  
Instrument ID: MS4 Date Extracted: 09/15/99  
Matrix: (soil/water) WATER Date Analyzed: 09/22/99  
Level: (low/med) LOW Time Analyzed: 1931

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	EPA SAMPLE NO. =====	LAB SAMPLE ID =====	LAB FILE ID =====	DATE ANALYZED =====
01	ER091099-01	990807-02	DW997	09/23/99
02	FB091099-01	990807-01	DW996	09/23/99
03	SLCSDH	S0915-LCS6	DW976	09/22/99

COMMENTS:

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORPContract: TETRA TECHLab Code: CEIMIC Case No.: CTO086

SAS No.: \_\_\_\_\_

SDG No.: 091099Lab File ID (Standard): DW968Date Analyzed: 09/22/99Instrument ID: MS4Time Analyzed: 1533

	IS1 (DCB)	RT #	IS2 (NPT)	RT #	IS3 (ANT)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	548821	4.65	1854821	5.83	1063350	8.54
UPPER LIMIT	1097642	5.15	3709642	6.33	2126700	9.04
LOWER LIMIT	274410	4.15	927410	5.33	531675	8.04
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SLCS DH	468717	4.63	1669235	5.80	972577	8.53
02 SBLK DH	688381	4.64	2304712	5.81	1202037	8.53

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Lab File ID (Standard): DW968 Date Analyzed: 09/22/99  
 Instrument ID: MS4 Time Analyzed: 1533

	IS4 (PHN) AREA #	RT #	IS5 (CRY) AREA #	RT #	IS6 (PRY) AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1851481	10.36	1392163	13.14	1330537	15.33
UPPER LIMIT	3702962	10.86	2784326	13.64	2661074	15.83
LOWER LIMIT	925740	9.86	696082	12.64	665268	14.83
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 SLCS DH	1667254	10.36	1398697	13.14	1318354	15.33
02 SBLK DH	1970726	10.36	1312192	13.13	1325168	15.33

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CT0086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Lab File ID (Standard): DW992 Date Analyzed: 09/23/99  
 Instrument ID: MS4 Time Analyzed: 1228

	IS1 (DCB)		IS2 (NPT)		IS3 (ANT)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	439195	4.62	1400076	5.78	802809	8.49
UPPER LIMIT	878390	5.12	2800152	6.28	1605618	8.99
LOWER LIMIT	219598	4.12	700038	5.28	401404	7.99
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 ER091099-01	697849	4.62	2415481	5.79	1331022	8.49
02 FB091099-01	964450 *	4.62	3435530 *	5.79	1932269 *	8.49

IS1 (DCB) = 1,4-Dichlorobenzene-d4

IS2 (NPT) = Naphthalene-d8

IS3 (ANT) = Acenaphthene-d10

AREA UPPER LIMIT = + 100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## SEMIVOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: CTO086 SAS No.: \_\_\_\_\_ SDG No.: 091099  
 Lab File ID (Standard): DW992 Date Analyzed: 09/23/99  
 Instrument ID: MS4 Time Analyzed: 1228

	IS4 (PHN)	RT #	IS5 (CRY)	RT #	IS6 (PRY)	RT #
	AREA #		AREA #		AREA #	
=====	=====	=====	=====	=====	=====	=====
12 HOUR STD	1568654	10.32	1174332	13.08	1169876	15.25
UPPER LIMIT	3137308	10.82	2348664	13.58	2339752	15.75
LOWER LIMIT	784327	9.82	587166	12.58	584938	14.75
=====	=====	=====	=====	=====	=====	=====
EPA SAMPLE NO.						
=====	=====	=====	=====	=====	=====	=====
01 ER091099-01	2180804	10.32	1422919	13.08	1395791	15.24
02 FB091099-01	3276900 *	10.32	2598391 *	13.08	2742870 *	15.24

IS4 (PHN) = Phenanthrene-d10

IS5 (CRY) = Chrysene-d12

IS6 (PRY) = Perylene-d12

AREA UPPER LIMIT = + 100% of internal standard area.

- AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = +0.50 minutes of internal standard RT.

RT LOWER LIMIT = -0.50 minutes of internal standard RT.

# Column used to flag internal standard area values with an asterisk.

\* Values outside of QC limits.

## **PESTICIDE ANALYSES**

**TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080**

Client: Tetra Tech NUS  
Client Sample ID: FB091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-01  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 10/04/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	55	34 - 129

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: HK

**TARGET COMPOUND LIST  
ORGANOCHLORINE PESTICIDES  
by SW846 Method 8080**

Client: Tetra Tech NUS  
Client Sample ID: ER091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-02  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 10/04/99  
Associated Method Blank: P0915-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery (%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	60	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: W



**METHOD BLANK**  
**ORGANOCHLORINE PESTICIDES**  
**by SW846 Method 8080**

Client: Tetra Tech NUS  
Blank ID: P0915-B1  
Matrix: Aqueous

Chemical Project: 990807  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/29/99  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
alpha-BHC	ND	0.050
beta-BHC	ND	0.050
delta-BHC	ND	0.050
gamma-BHC	ND	0.050
Heptachlor	ND	0.050
Aldrin	ND	0.050
Heptachlor Epoxide	ND	0.050
Endosulfan I	ND	0.050
Dieldrin	ND	0.10
4,4'-DDE	ND	0.10
Endrin	ND	0.10
Endosulfan II	ND	0.10
4,4'-DDD	ND	0.10
Endosulfan Sulfate	ND	0.10
4,4'-DDT	ND	0.10
Methoxychlor	ND	0.50
Endrin Ketone	ND	0.10
Endrin Aldehyde	ND	0.10
alpha-Chlordane	ND	0.050
gamma-Chlordane	ND	0.050
Toxaphene	ND	5.0
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: SL

**LABORATORY CONTROL SUMMARY**  
**ORGANOCHLORINE PESTICIDES**  
 by SW846 Method 8080

Client: Tetra Tech NUS  
 Blank Spike ID: P0915-LCS1  
 Matrix: Aqueous

Ceimic Project: 990807  
 Date Sample Analyzed: 09/29/99  
 Date Sample Prepared: 09/15/99  
 Associated Method Blank: P0915-B1  
 Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
alpha-BHC	0.50	0.39	78	49 - 150
beta-BHC	0.50	0.39	78	60 - 135
delta-BHC	0.50	0.40	80	32 - 140
gamma-BHC	0.50	0.40	80	54 - 144
Heptachlor	0.50	0.38	76	54 - 134
Aldrin	0.50	0.41	82	58 - 132
Heptachlor Epoxide	0.50	0.41	82	60 - 130
Endosulfan I	0.50	0.27	54	46 - 131
Dieldrin	0.50	0.41	82	64 - 135
4,4'-DDE	0.50	0.46	92	57 - 141
Endrin	0.50	0.45	90	63 - 147
Endosulfan II	0.50	0.35	70	69 - 137
4,4'-DD	0.50	0.43	86	49 - 141
Endosulfan Sulfate	0.50	0.44	88	51 - 144
4,4'-DDT	0.50	0.43	86	64 - 146
Methoxychlor	0.50	0.49	98	64 - 152
Endrin Ketone	0.50	0.45	90	62 - 150
Endrin Aldehyde	0.50	0.50	100	56 - 129

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	70	56 - 111
Decachlorobiphenyl	80	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: PL

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Prep Date/Time: 09/15/57

Analysis: Best

Matrix: 994444

<p>*All volumes are in milliliters (ml) unless otherwise noted.</p>		<p>Comment Codes:</p>  <p>RE = Reextract</p> <p>AL 2nd Aliquot</p>	
<p>Extr.Solvent ID: <u>NO 4026 3</u></p> <p>Final Solvent ID: <u>—</u></p> <p>Container Lot #: <u>—</u></p> <p>Prepared by: <u>JM</u></p>	<p>Sodium Sulfate Lot #: <u>—</u></p> <p>Supervisor Init: <u>JM</u></p> <p>Surrogate Added By: <u>JM</u></p> <p>Witnessed By: <u>JM</u></p>		<p>Reagents IDs:</p> <div style="display: flex; align-items: center;"> <input type="checkbox"/> GPC             <div style="margin-left: 20px;">X</div> <div style="margin-left: 20px;">Y</div> <div style="margin-left: 20px;">Z</div> </div> <div style="display: flex; align-items: center;"> <input type="checkbox"/> Silica             <div style="margin-left: 20px;"></div> </div> <div style="display: flex; align-items: center;"> <input type="checkbox"/> Florisil             <div style="margin-left: 20px;"></div> </div> <p style="text-align: right;">Lot #: <u>      </u></p>

## PCB ANALYSES

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: FB091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-01  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/27/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
  
Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	105	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AS

Approved by: HL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: ER091099-01  
Date Sampled: 09/10/99  
Date Sample Received: 09/11/99  
Matrix: Aqueous

Laboratory ID: 990807-02  
Date Sample Extracted: 09/15/99  
Date Sample Analyzed: 09/27/99  
Associated Method Blank: P0915-B4  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
or-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	90	56 - 111
Decachlorobiphenyl	65	34 - 129

\* These limits are provided for advisory purposes.

Reported by:                     SAS                    

Approved by:                     JL

**METHOD BLANK**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P0915-B4

Matrix: Aqueous

Coimic Project: 990807

Date Sample Extracted: 09/15/99

Date Sample Analyzed: 09/27/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	1.0
Aroclor-1221	ND	2.0
Aroclor-1232	ND	1.0
Aroclor-1242	ND	1.0
Aroclor-1248	ND	1.0
Aroclor-1254	ND	1.0
Aroclor-1260	ND	1.0

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	95	56 - 111
Decachlorobiphenyl	85	34 - 129

\* These limits are provided for advisory purposes.

Reported by:                     *AS*                    

Approved by:                     *RL*

**LABORATORY CONTROL SUMMARY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P0915-LCS4

Matrix: Aqueous

CEMIS Project: 990807

Date Sample Analyzed: 09/27/99

Date Sample Prepared: 09/15/99

Associated Method Blank: P0915-B4

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%) <sup>*</sup>
Aroclor-1016	5.0	5.2	104	30 - 150
Aroclor-1260	5.0	5.3	106	47 - 127

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%) <sup>*</sup>
Tetrachloro-m-xylene	85	56 - 111
Decachlorobiphenyl	95	34 - 129

<sup>\*</sup> These limits are provided for advisory purposes.

Reported by: AS

Approved by: R



## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 990 807

Analytical Method: 8081 A

Surf. Sol. ID: FW990830B

Prep Date/Time: 09/15/57

Client: Setra Technics

Extraction Method: Sep. funnel

MS Sol. ID: Pw 790701B

Analysis: *Rest*

Blank ID: P00915 B1

LCS ID: 700915 LCS,

Add'l Spike ID:           

Matrix: 99/11/11/11

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION								INIT & DATE TRANSFER		COMMENTS
										GC/MS			GC/LC							
Client ID	Case ID	Vol/ Wt (ml/g)	Surr Vol (μl)	MS Vol (μl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS	GC/ LC	
FBC1099-0	7080701	100ml	1ml	-					10ml								1ml			
66091099-0	02	↓	↓	-					↓								↓			
<div> <div>IM 07/15/99</div> <div>1/17/97</div> </div>																				

\*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N030263

Sodium Sulfate Lot #: 1

Reagents IDs:

Final Solvent ID:           

Supervisor Init: JA

GPC	X	Y	Z
1	1	1	1
2	1	1	1
3	1	1	1
4	1	1	1
5	1	1	1
6	1	1	1
7	1	1	1
8	1	1	1
9	1	1	1
10	1	1	1
11	1	1	1
12	1	1	1
13	1	1	1
14	1	1	1
15	1	1	1
16	1	1	1
17	1	1	1
18	1	1	1
19	1	1	1
20	1	1	1
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23	1	1	1
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32	1	1	1
33	1	1	1
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44	1	1	1
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47	1	1	1
48	1	1	1
49	1	1	1
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51	1	1	1
52	1	1	1
53	1	1	1
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64	1	1	1
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76	1	1	1
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80	1	1	1
81	1	1	1
82	1	1	1
83	1	1	1
84	1	1	1
85	1	1	1
86	1	1	1
87	1	1	1
88	1	1	1
89	1	1	1
90	1	1	1
91	1	1	1
92	1	1	1
93	1	1	1
94	1	1	1
95	1	1	1
96	1	1	1
97	1	1	1
98	1	1	1
99	1	1	1
100	1	1	1

Container Lot #: —

Surrogate Added By: DM

☐ Silica

Prepared by: MM

Witnessed By: [Signature]

**Florasil**

Lot #:

Comment Codes:

$$RE = Rec_{\text{exact}}$$

AL 2nd Aliquot

CEIMIC CORPORATION

Organic Preparation Laboratory / Sample Preparation Bench Sheets

Project#: 490807

Analytical Method: 8082

Surr. Sol. ID: PW 9909 K B

Prep Date/Time: 09/15/99

Client: Zetra Tech Nuy

Extraction Method: sep funnel

MS Sol. ID: PW 950701B

Analysis: PCB only

Blank ID: 70091534

LCS ID: 200615 LC541

Add'l Spike ID:           

Matrix: aqueous

IDENTIFICATION		EXTRACTION SECTION								EXTRACT CLEAN-UP SECTION							INIT & DATE TRANSFER		COMMENTS	
Client ID	Case ID	Vol/ Wt (ml/g)	Surr Vol (μl)	MS Vol (μl)	% Moist	pH	Acid pH	Basic pH	Final Ext Vol*	Clean Up Vol*	Post Clean Vol*	Vol Trans*	Clean Up Vol*	Post Clean Vol*	Florisil Vol*	Post Florisil Vol*	Vol Trans*	GC/ MS		GC/ LC
—	PO 0915 B4	1000	1000	—					10 ml								1 ml	T	7/26/99	
—	PO 0915 B30	↓	↓	—					↓								↓	↓	↓	
—	LCS1			100																
FB091099-0	PO 807-01			—																
FB091099-0	02	↓	↓	—					↓											
<div>gm 07/15/99</div>																				

\*All volumes are in milliliters (ml) unless otherwise noted.

Extr.Solvent ID: N020163

Sodium Sulfate Lot #:           

Reagents IDs:

Final Solvent ID: —

Supervisor Init: MA

Container Lot #: —

Surrogate Added By: hmn

Prepared by: Wm

Witnessed By: J. F. M.

<input type="checkbox"/>	GPC	X	Y	Z
<input type="checkbox"/>	Silica			
<input type="checkbox"/>	Florisil			

Lot #:

**Comment Codes:**

$$RE = Rec_{\text{extract}}$$

AL 2nd Aliquot

## METAL ANALYSES

TOTAL METALS AND CYANIDE  
- Cover Page -  
INORGANIC ANALYSIS DATA PACKAGE

Co ct: Outlaying Landing Field Bronson Pensacola, FL SDG No.: 091099  
Lab Code: CEIMIC Case No.: 990807 SAS No.:  
SOW No.: ILM04.0

<u>Sample No.</u>	<u>Lab Sample ID.</u>
<u>FB091099-01</u>	<u>990807-01</u>
<u>ER091099-01</u>	<u>990807-02</u>

We ICP interelement corrections applied? Yes/No YES  
Were ICP background corrections applied? Yes/No YES  
If yes-were raw data generated before application of background corrections? Yes/No NO

Comments:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on floppy diskette has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: Donald Tortorelli Name: Donald Tortorelli  
Date: 10/1/97 Title: INORGANIC LAB MGR

## TOTAL METALS AND CYANIDE

-1-

## INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

FB091099-01

Contract: Outlying Landing Field Bronson Pensacola, FLb Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099Matrix (soil/water): WATERLab Sample ID: 990807-01Level (low/med): LOWDate Received: 09/11/99Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	12.9	B		P
7440-41-7	Beryllium	0.64	B		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	246	B		P
7782-49-2	Selenium	2.3	B		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	385	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	3.8	B		P
7440-66-6	Zinc	14.0	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments:

Approved: David Tortorella

TOTAL METALS AND CYANIDE  
-1-  
INORGANIC ANALYSIS DATA SHEET

SAMPLE NO.

ER091099-01

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099Matrix (soil/water): WATERLab Sample ID: 990807-02Level (low/med): LOWDate Received: 09/11/99% Solids: 0.0Concentration Units (ug/L or mg/kg dry weight): µg/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	41.0	U		P
7440-36-0	Antimony	2.6	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	4.5	U		P
7440-41-7	Beryllium	0.37	U		P
7440-43-9	Cadmium	0.43	U		P
7440-70-2	Calcium	333	B		P
7440-47-3	Chromium	5.4	U		P
7440-48-4	Cobalt	5.2	U		P
7440-50-8	Copper	3.8	U		P
	Cyanide	5.0	U		C
7439-89-6	Iron	40.0	U		P
7439-92-1	Lead	2.7	U		P
7439-95-4	Magnesium	119	U		P
7439-96-5	Manganese	3.0	U		P
7439-97-6	Mercury	0.18	U		AV
7440-02-0	Nickel	6.3	U		P
7440-09-7	Potassium	222	U		P
7782-49-2	Selenium	2.1	U		P
7440-22-4	Silver	3.7	U		P
7440-23-5	Sodium	293	B		P
7440-28-0	Thallium	4.4	U		P
7440-62-2	Vanadium	2.8	U		P
7440-66-6	Zinc	18.5	B		P

Color Before: COLORLESSClarity Before: CLEAR

Texture:

Color After: COLORLESSClarity After: CLEAR

Artifacts:

Comments:

Approved: Donald Tortoulli

## TOTAL METALS AND CYANIDE

- 3 -

## BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099Preparation Blank Matrix (soil/water): WATERPreparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L)						Preparation Blank	C	M
			1	C	2	C	3	C			
Aluminum			41.0	U	41.0	U	42.3	B	141.000	B	P
Barium			16.4	B	12.4	B	17.4	B	9.910	B	P
Beryllium			0.4	U	-0.4	B	0.4	U	0.430	B	P
Calcium			-127.3	B	170.1	B	-254.8	B	495.000	B	P
Chromium			-10.9	B	-11.8	B	-9.9	B	5.710	B	P
Cobalt			7.1	B	5.7	B	8.5	B	15.600	B	P
Copper			-4.7	B	-6.6	B	-4.7	B	13.000	B	P
Iron			40.0	U	40.0	U	40.0	U	40.000	U	P
Magnesium			119.0	U	133.7	B	119.0	U	551.000	B	P
Manganese			3.0	U	3.0	U	3.0	U	3.000	U	P
Nickel			-24.4	B	-31.9	B	-23.9	B	-11.960	B	P
Potassium			222.0	U	314.8	B	286.8	B	620.000	B	P
Sodium			57.0	U	133.2	B	57.0	U	570.000	B	P
Vanadium			5.3	B	2.8	U	2.8	U	18.500	B	P
Zinc			5.5	U	5.5	U	5.5	U	16.800	B	P

TOTAL METALS AND CYANIDE  
- 3 -  
BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL  
Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099  
Preparation Blank Matrix (soil/water): WATER  
Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
		C	1	C	2	C	3	C		C	
Antimony	2.6	U	2.6	U	2.6	U	2.6	U	2.600	U	P
Arsenic	3.6	U	3.6	U	3.6	U	3.6	U	3.600	U	P
Cadmium	0.4	U	0.4	U	0.4	U	0.4	U	0.430	U	P
Lead	2.7	U	2.7	U	2.7	U	2.7	U	2.700	U	P
Mercury			0.14	U	0.14	U	0.14	U	0.140	U	AV
Selenium	3.3	B	2.1	U	2.1	U	2.8	B	2.100	U	P
Silver	3.7	U	3.7	U	3.7	U	3.7	U	3.700	U	P
Thallium	4.4	U	4.4	U	4.4	U	4.4	U	4.400	U	P



TOTAL METALS AND CYANIDE

- 3 -

BLANKS

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.:                      SDG NO.: 091099

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calib. Blank (ug/L)		Continuing Calibration Blank (ug/L)						Preparation Blank		M
	C		1	C	2	C	3	C	C		
Cyanide	10.0	U	10.0	U	10.0	U			5.000	U	C

TOTAL METALS AND CYANIDE

-7-

LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FL

Lab Code: CEIMIC Case No.: 990807 SAS No.: SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits	%R	
Aluminum	10000.0	9660.60	96.6						
Barium	10000.0	8989.20	89.9						
Beryllium	250.0	241.13	96.5						
Calcium	25000.0	24334.00	97.3						
Chromium	1000.0	923.29	92.3						
Cobalt	2500.0	2266.90	90.7						
Copper	1250.0	1104.50	88.4						
Iron	5000.0	4833.20	96.7						
Magnesium	25000.0	24312.00	97.2						
Manganese	2500.0	2280.20	91.2						
Nickel	2500.0	2234.90	89.4						
Potassium	25000.0	22620.00	90.5						
Sodium	25000.0	24776.00	99.1						
Vanadium	2500.0	2377.40	95.1						
Zinc	2500.0	2240.30	89.6						
Cyanide	80.0	77.99	97.5						

## TOTAL METALS AND CYANIDE

-7-

## LABORATORY CONTROL SAMPLE

Contract: Outlaying Landing Field Bronson Pensacola, FLLab Code: CEIMICCase No.: 990807

SAS No.:

SDG NO.: 091099

Solid LCS Source:

Aqueous LCS Source: INOR-VNT-ICV

Analyte	Aqueous (ug/L)			Solid (mg/kg)					
	True	Found	%R	True	Found	C	Limits	%R	
Antimony	500.0	453.52	90.7						
Arsenic	200.0	181.71	90.9						
Cadmium	100.0	85.84	85.8						
Lead	200.0	175.02	87.5						
Selenium	200.0	185.06	92.5						
Silver	1250.0	1138.50	91.1						
Thallium	200.0	175.64	87.8						

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

---

November 2, 1999

Ms. Lee Leck  
Tetra Tech NUS  
Foster Plaza VII  
661 Andersen Dr.  
Pittsburgh, PA 15220

Dear Ms. Leck:

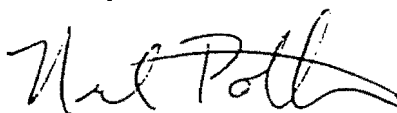
Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlying Landing Field Bronson Pensacola, FL Project, CTO# 86, Project No. 770413, SDG No. 02SU02. The 2 soil samples were taken from the field on October 12, 1999 and received at Ceimic Corporation on October 13, 1999.

These samples are reported under Ceimic Project Number 990890, which can be referenced when inquiring about this project.

For the semivolatiles fraction, sample 102SU02 was double spiked with internal standards.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,



Neil Pothier, Ph.D.  
Laboratory Manager

NP/djj

Enclosures

cc: Mr. Terry Hansen  
Tetra Tech NUS  
1311 Executive Center Dr.  
Ellis Bldg.  
Suite 220  
Tallahassee, FL 32301

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**CHAIN OF CUSTODY**

## CHAIN OF CUSTODY RECORD

~~SOUTHWEST LABORATORY OF OKLAHOMA, INC.~~

~~1700 W. Albany & Broken Arrow, Oklahoma 74012-1421~~

Office: 910-251-2858 FAX: 910-251-2292

TM

SAMPLER: (Signature)

### SAMPLING FIRM

Total Tech

**CLIENT CONTACT**

PHONE NUMBER

7/11/1941

P.O. or PROPOSAL NUMBER

PROJECT NAME

WAC: Penner, WOLF Bence / CTO 96

ANALYTICAL TESTS REQUESTED 1

TEL 000  
TEL 5000  
Pest  
Pest  
TAL 10000

REMARKS

[illegible]

RELINQUISHED BY: (Signature)

DATE \_\_\_\_\_

**TIME**

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE \_\_\_\_\_

TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE

TIME

RECEIVED BY: (Signature)

RELINQUISHED BY: (Signature)

DATE \_\_\_\_\_

**TIME**

RECEIVED FOR LABORATORY BY: (Signature)

RELINQUISHED BY: (Signature)

DATE

TIME

RECEIVED BY: (Signature)

REMARKS:

## **VOLATILE ANALYSES**



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V121013-B1

Date Sample Analyzed: 10/13/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
- Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

Reported by: 

Approved by:  04

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V121013-B1

Date Sample Analyzed: 10/13/99

Matrix: Soil

Concentration in: ug/Kg (ppb)

**Target Analyte**

**Sample  
Concentration**

**Quantitation  
Limit**

1,1,2,2-Tetrachloroethane  
Toluene  
Chlorobenzene  
Ethylbenzene  
Benzene  
Total Xylenes

ND  
ND  
ND  
ND  
ND  
ND

5  
5  
5  
5  
5  
5

ND = Not detected

**Surrogate Spike Recovery**

**Surrogate Compound**

**Recovery(%)**

**QC Limits(%)**

1,2-Dichloroethane-d4  
Dibromofluoromethane  
Toluene-d8  
Bromofluorobenzene

83  
102  
104  
101

52 - 149  
65 - 135  
65 - 135  
65 - 135

Reported by: \_\_\_\_\_

Approved by: \_\_\_\_\_

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V151013-B1

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

Reported by: 

Approved by:  06

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: V151013-B1

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Benzene	ND	5
Xylenes	ND	5
Total Xylenes	ND	5

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	107	62 - 139
Dibromofluoromethane	116	75 - 125
Toluene-d8	104	75 - 125
Bromofluorobenzene	122	75 - 125

Reported by:                     

Approved by:                      07

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MODIFIED COMPOUND LIST  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Soil

Percent Solids: 96

Laboratory ID: 990890-01

Date Sample Analyzed: 10/13/99

Associated Method Blank: V121013-B1

Dilution Factor: 1

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	9	5
Acetone	11	11
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	11
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	11
4-Methyl-2-Pentanone	ND	11
Tetrachloroethene	ND	5

Reported by:                     

Approved by:                      08

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MODIFIED COMPOUND LIST  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Soil

Percent Solids: 96

Laboratory ID: 990890-01

Date Sample Analyzed: 10/13/99

Associated Method Blank: V121013-B1

Dilution Factor: 1


Concentration in: ug/Kg (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
Ethylbenzene	ND	5
Xylene	ND	5
Total Xylenes	ND	5

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	105	52 - 149
Dibromofluoromethane	104	65 - 135
Toluene-d8	103	65 - 135
Bromofluorobenzene	103	65 - 135

Reported by: 

Approved by: 

09

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MODIFIED COMPOUND LIST  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB1012

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Aqueous

Laboratory ID: 990890-02

Date Sample Analyzed: 10/13/99

Associated Method Blank: V151013-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	5
Bromomethane	ND	5
Vinyl Chloride	ND	5
Chloroethane	ND	5
Methylene Chloride	ND	5
Acetone	ND	10
Carbon Disulfide	ND	5
1,1-Dichloroethene	ND	5
1,1-Dichloroethane	ND	5
1,2-Dichloroethene (total)	ND	5
Chloroform	ND	5
1,2-Dichloroethane	ND	5
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5
Carbon Tetrachloride	ND	5
Bromodichloromethane	ND	5
1,2-Dichloropropane	ND	5
trans-1,3-Dichloropropene	ND	5
Trichloroethene	ND	5
Dibromochloromethane	ND	5
1,1,2-Trichloroethane	ND	5
Benzene	ND	5
cis-1,3-Dichloropropene	ND	5
Bromoform	ND	5
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
Tetrachloroethene	ND	5

Reported by: 

Approved by: 

10

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MODIFIED COMPOUND LIST  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB1012

Date Sampled: 10/12/99

Date Sample Received: 10/13/99

Matrix: Aqueous

Laboratory ID: 990890-02

Date Sample Analyzed: 10/13/99

Associated Method Blank: V151013-B1

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
1,1,2,2-Tetrachloroethane	ND	5
Toluene	ND	5
Chlorobenzene	ND	5
benzene	ND	5
Styrene	ND	5
Total Xylenes	ND	5

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	104	62 - 139
Dibromofluoromethane	109	75 - 125
Toluene-d8	102	75 - 125
Bromofluorobenzene	114	75 - 125

Reported by: 

Approved by:  11



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank Spike ID: V121013-LCS

Date Sample Analyzed: 10/13/99

Matrix: Soil

Associated Method Blank: V121013-B1

Concentration: ug/Kg (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	53	106	60 - 128
Trichloroethene	50	55	109	57 - 145
Benzene	50	55	110	72 - 124
Toluene	50	56	112	71 - 135
Chlorobenzene	50	56	112	72 - 135

\* These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	99	52 - 149
Dibromofluoromethane	106	65 - 135
Toluene-d8	106	65 - 135
Bromofluorobenzene	103	65 - 135

Reported by: 

Approved by: 

1.2

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank Spike ID: V151013-LCS

Date Sample Analyzed: 10/13/99

Matrix: Aqueous

Associated Method Blank: V151013-B1

Concentration:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	50	52	104	68 - 124
Trichloroethene	50	51	103	75 - 120
Benzene	50	52	103	78 - 127
Toluene	50	52	105	71 - 132
Chlorobenzene	50	52	103	77 - 128

\* These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	103	62 - 139
Dibromofluoromethane	105	75 - 125
Toluene-d8	106	75 - 125
Bromofluorobenzene	99	75 - 125

Reported by: 

Approved by: 

13

**SEMIVOLATILE ORGANIC ANALYSES**

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102SU02

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02  
 Matrix: (soil/water) SOIL Lab Sample ID: 990890-01  
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: JY983  
 Level: (low/med) LOW Date Received: 10/13/99  
 Moisture: 4 decanted: (Y/N) N Date Extracted: 10/15/99  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99  
 Injection Volume: 2.0 (uL) Dilution Factor: 2.0 1.0  
 PC Cleanup: (Y/N) Y pH: \_\_\_\_\_

TS 11/2/99

CAS NO. COMPOUND CONCENTRATION UNITS:  
 (ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	170	U
111-44-4-----	bis(2-Chloroethyl) Ether	170	U
95-57-8-----	2-Chlorophenol	170	U
541-73-1-----	1,3-Dichlorobenzene	170	U
106-46-7-----	1,4-Dichlorobenzene	170	U
95-50-1-----	1,2-Dichlorobenzene	170	U
95-48-7-----	2-Methylphenol	170	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	170	U
106-44-5-----	4-Methylphenol	170	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	170	U
67-72-1-----	Hexachloroethane	170	U
98-95-3-----	Nitrobenzene	170	U
78-59-1-----	Isophorone	170	U
88-75-5-----	2-Nitrophenol	170	U
105-67-9-----	2,4-Dimethylphenol	170	U
111-91-1-----	bis(2-Chloroethoxy) Methane	170	U
120-83-2-----	2,4-Dichlorophenol	170	U
120-82-1-----	1,2,4-Trichlorobenzene	170	U
91-20-3-----	Naphthalene	170	U
106-47-8-----	4-Chloroaniline	170	U
87-68-3-----	Hexachlorobutadiene	170	U
59-50-7-----	4-Chloro-3-Methylphenol	170	U
91-57-6-----	2-Methylnaphthalene	170	U
77-47-4-----	Hexachlorocyclopentadiene	170	U
88-06-2-----	2,4,6-Trichlorophenol	170	U
95-95-4-----	2,4,5-Trichlorophenol	340	U
91-58-7-----	2-Chloronaphthalene	170	U
88-74-4-----	2-Nitroaniline	340	U
131-11-3-----	Dimethyl Phthalate	170	U
208-96-8-----	Acenaphthylene	170	U
606-20-2-----	2,6-Dinitrotoluene	170	U
99-09-2-----	3-Nitroaniline	340	U
83-32-9-----	Acenaphthene	170	U

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1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102SU02

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02  
 Matrix: (soil/water) SOIL Lab Sample ID: 990890-01  
 Sample wt/vol: 30.1 (g/mL) G Lab File ID: JY983  
 Level: (low/med) LOW Date Received: 10/13/99  
 Moisture: 4 decanted: (Y/N) N Date Extracted: 10/15/99  
 Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99  
 Injection Volume: 2.0 (uL) Dilution Factor: 2.0 1.0  
 PC Cleanup: (Y/N) Y pH: \_\_\_\_\_

10/2/99

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

51-28-5-----	2,4-Dinitrophenol	340	U
100-02-7-----	4-Nitrophenol	340	U
132-64-9-----	Dibenzofuran	170	U
121-14-2-----	2,4-Dinitrotoluene	170	U
84-66-2-----	Diethylphthalate	170	U
7005-72-3-----	4-Chlorophenyl-phenylether	170	U
86-73-7-----	Fluorene	170	U
100-01-6-----	4-Nitroaniline	340	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	340	U
86-30-6-----	N-Nitrosodiphenylamine (1)	170	U
101-55-3-----	4-Bromophenyl-phenylether	170	U
118-74-1-----	Hexachlorobenzene	170	U
87-86-5-----	Pentachlorophenol	340	U
85-01-8-----	Phenanthrene	170	U
120-12-7-----	Anthracene	170	U
86-74-8-----	Carbazole	170	U
84-74-2-----	Di-n-Butylphthalate	170	U
206-44-0-----	Fluoranthene	170	U
129-00-0-----	Pyrene	170	U
85-68-7-----	Butylbenzylphthalate	170	U
91-94-1-----	3,3'-Dichlorobenzidine	170	U
56-55-3-----	Benzo(a)Anthracene	170	U
218-01-9-----	Chrysene	170	U
117-81-7-----	bis(2-Ethylhexyl)Phthalate	170	U
117-84-0-----	Di-n-Octyl Phthalate	170	U
205-99-2-----	Benzo(b)Fluoranthene	170	U
207-08-9-----	Benzo(k)Fluoranthene	170	U
50-32-8-----	Benzo(a)Pyrene	170	U
193-39-5-----	Indeno(1,2,3-cd)Pyrene	170	U
53-70-3-----	Dibenzo(a,h)Anthracene	170	U
191-24-2-----	Benzo(g,h,i)Perylene	170	U

(1) - Cannot be separated from Diphenylamine

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1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSJS

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-LCS2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY980

Level: (low/med) LOW Date Received: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

SPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	1200	
111-44-4-----	bis(2-Chloroethyl) Ether	1000	
95-57-8-----	2-Chlorophenol	1100	
541-73-1-----	1,3-Dichlorobenzene	990	
106-46-7-----	1,4-Dichlorobenzene	950	
95-50-1-----	1,2-Dichlorobenzene	980	
95-48-7-----	2-Methylphenol	1200	
108-60-1-----	2,2'-oxybis(1-Chloropropane)	1100	
106-44-5-----	4-Methylphenol	1200	
621-64-7-----	N-Nitroso-Di-n-Propylamine	1100	
67-72-1-----	Hexachloroethane	940	
98-95-3-----	Nitrobenzene	1100	
78-59-1-----	Isophorone	1100	
88-75-5-----	2-Nitrophenol	1100	
105-67-9-----	2,4-Dimethylphenol	990	
111-91-1-----	bis(2-Chloroethoxy)Methane	1100	
120-83-2-----	2,4-Dichlorophenol	1200	
120-82-1-----	1,2,4-Trichlorobenzene	1000	
91-20-3-----	Naphthalene	1100	
106-47-8-----	4-Chloroaniline	670	
87-68-3-----	Hexachlorobutadiene	1000	
59-50-7-----	4-Chloro-3-Methylphenol	1300	
91-57-6-----	2-Methylnaphthalene	1100	
77-47-4-----	Hexachlorocyclopentadiene	1000	
88-06-2-----	2,4,6-Trichlorophenol	1300	
95-95-4-----	2,4,5-Trichlorophenol	1300	
91-58-7-----	2-Chloronaphthalene	1200	
88-74-4-----	2-Nitroaniline	1300	
131-11-3-----	Dimethyl Phthalate	1300	
208-96-8-----	Acenaphthylene	1200	
606-20-2-----	2,6-Dinitrotoluene	1300	
99-09-2-----	3-Nitroaniline	1100	
83-32-9-----	Acenaphthene	1200	

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1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SLCSJS

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-LCS2

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY980

Level: (low/med) LOW Date Received: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

51-28-5-----	2,4-Dinitrophenol	1100	
100-02-7-----	4-Nitrophenol	1400	
132-64-9-----	Dibenzofuran	1200	
121-14-2-----	2,4-Dinitrotoluene	1400	
84-66-2-----	Diethylphthalate	1300	
7005-72-3-----	4-Chlorophenyl-phenylether	1200	
86-73-7-----	Fluorene	1200	
100-01-6-----	4-Nitroaniline	1200	
534-52-1-----	4,6-Dinitro-2-Methylphenol	1300	
86-30-6-----	N-Nitrosodiphenylamine (1)	1300	
101-55-3-----	4-Bromophenyl-phenylether	1300	
118-74-1-----	Hexachlorobenzene	1300	
87-86-5-----	Pentachlorophenol	1400	
85-01-8-----	Phenanthrene	1300	
120-12-7-----	Anthracene	1300	
86-74-8-----	Carbazole	1300	
84-74-2-----	Di-n-Butylphthalate	1300	
206-44-0-----	Fluoranthene	1400	
129-00-0-----	Pyrene	1400	
85-68-7-----	Butylbenzylphthalate	1400	
91-94-1-----	3,3'-Dichlorobenzidine	1000	
56-55-3-----	Benzo(a)Anthracene	1400	
218-01-9-----	Chrysene	1400	
117-81-7-----	bis(2-Ethylhexyl) Phthalate	1400	
117-84-0-----	Di-n-Octyl Phthalate	1500	
205-99-2-----	Benzo(b)Fluoranthene	1400	
207-08-9-----	Benzo(k)Fluoranthene	1400	
50-32-8-----	Benzo(a)Pyrene	1300	
193-39-5-----	Indeno(1,2,3-cd)Pyrene	1400	
53-70-3-----	Dibenzo(a,h)Anthracene	1500	
191-24-2-----	Benzo(g,h,i)Perylene	1400	

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(1) - Cannot be separated from Diphenylamine

1B  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKJS

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-B2J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY981

Level: (low/med) LOW Date Received: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

EPC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/KG Q

108-95-2-----	Phenol	160	U
111-44-4-----	bis(2-Chloroethyl) Ether	160	U
95-57-8-----	2-Chlorophenol	160	U
541-73-1-----	1,3-Dichlorobenzene	160	U
106-46-7-----	1,4-Dichlorobenzene	160	U
95-50-1-----	1,2-Dichlorobenzene	160	U
95-48-7-----	2-Methylphenol	160	U
108-60-1-----	2,2'-oxybis(1-Chloropropane)	160	U
106-44-5-----	4-Methylphenol	160	U
621-64-7-----	N-Nitroso-Di-n-Propylamine	160	U
67-72-1-----	Hexachloroethane	160	U
98-95-3-----	Nitrobenzene	160	U
78-59-1-----	Isophorone	160	U
88-75-5-----	2-Nitrophenol	160	U
105-67-9-----	2,4-Dimethylphenol	160	U
111-91-1-----	bis(2-Chloroethoxy)Methane	160	U
120-83-2-----	2,4-Dichlorophenol	160	U
120-82-1-----	1,2,4-Trichlorobenzene	160	U
91-20-3-----	Naphthalene	160	U
106-47-8-----	4-Chloroaniline	160	U
87-68-3-----	Hexachlorobutadiene	160	U
59-50-7-----	4-Chloro-3-Methylphenol	160	U
91-57-6-----	2-Methylnaphthalene	160	U
77-47-4-----	Hexachlorocyclopentadiene	160	U
88-06-2-----	2,4,6-Trichlorophenol	160	U
95-95-4-----	2,4,5-Trichlorophenol	330	U
91-58-7-----	2-Chloronaphthalene	160	U
88-74-4-----	2-Nitroaniline	330	U
131-11-3-----	Dimethyl Phthalate	160	U
208-96-8-----	Acenaphthylene	160	U
606-20-2-----	2,6-Dinitrotoluene	160	U
99-09-2-----	3-Nitroaniline	330	U
83-32-9-----	Acenaphthene	160	U



1C  
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKJS

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: S1015-B2J

Sample wt/vol: 30.0 (g/mL) G Lab File ID: JY981

Level: (low/med) LOW Date Received: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) N Date Extracted: 10/15/99

Concentrated Extract Volume: 500.0 (uL) Date Analyzed: 10/29/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

PC Cleanup: (Y/N) Y pH: \_\_\_\_\_

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG

CAS NO. COMPOUND Q

51-28-5-----	2,4-Dinitrophenol	330	U
100-02-7-----	4-Nitrophenol	330	U
132-64-9-----	Dibenzofuran	160	U
121-14-2-----	2,4-Dinitrotoluene	160	U
84-66-2-----	Diethylphthalate	160	U
7005-72-3-----	4-Chlorophenyl-phenylether	160	U
86-73-7-----	Fluorene	160	U
100-01-6-----	4-Nitroaniline	330	U
534-52-1-----	4,6-Dinitro-2-Methylphenol	330	U
86-30-6-----	N-Nitrosodiphenylamine (1)	160	U
101-55-3-----	4-Bromophenyl-phenylether	160	U
118-74-1-----	Hexachlorobenzene	160	U
87-86-5-----	Pentachlorophenol	330	U
85-01-8-----	Phenanthrene	160	U
120-12-7-----	Anthracene	160	U
86-74-8-----	Carbazole	160	U
84-74-2-----	Di-n-Butylphthalate	160	U
206-44-0-----	Fluoranthene	160	U
129-00-0-----	Pyrene	160	U
85-68-7-----	Butylbenzylphthalate	160	U
91-94-1-----	3,3'-Dichlorobenzidine	160	U
56-55-3-----	Benzo(a) Anthracene	160	U
218-01-9-----	Chrysene	160	U
117-81-7-----	bis(2-Ethylhexyl) Phthalate	160	U
117-84-0-----	Di-n-Octyl Phthalate	160	U
205-99-2-----	Benzo(b) Fluoranthene	160	U
207-08-9-----	Benzo(k) Fluoranthene	160	U
50-32-8-----	Benzo(a) Pyrene	160	U
193-39-5-----	Indeno(1,2,3-cd) Pyrene	160	U
53-70-3-----	Dibenzo(a,h) Anthracene	160	U
191-24-2-----	Benzo(g,h,i) Perylene	160	U

(1) - Cannot be separated from Diphenylamine

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2D  
SOIL SEMIVOLATILE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02  
 Level: (low/med) LOW

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 (PHL) #	S5 (2FP) #	S6 (TBP) #	S7 (2CP) #	S8 (DCB) #	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====	=====	=====
**01	102SU02	56	62	74	58	57	60	56	56	0
02	SLCSJS	67	72	83	67	70	82	65	62	0
03	SBLKJS	65	70	78	66	63	69	63	63	0

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 ( 23-120)  
 S2 (FBP) = 2-Fluorobiphenyl ( 43-116)  
 S3 (TPH) = Terphenyl-d14 ( 18-137)  
 S4 (PHL) = Phenol-d5 ( 24-113)  
 S5 (2FP) = 2-Fluorophenol ( 25-121)  
 S6 (TBP) = 2,4,6-Tribromophenol ( 19-122)  
 S7 (2CP) = 2-Chlorophenol-d4 ( 20-130) (advisory)  
 S8 (DCB) = 1,2-Dichlorobenzene-d4 ( 20-130) (advisory)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

\*\* Sample 102SU02 was double spiked with internal standards.

LABORATORY CONTROL SPIKE SUMMARY  
SEMIVOLATILE ORGANIC ANALYSIS  
EPA Method 8270 SOIL

LAB SAMP ID S1015-LCS2      SAMPLE ID SLCSJS  
LAB QC ID \_\_\_\_\_      TYPE EPA      DATA RELEASE AUTHORIZED BY \_\_\_\_\_

FILE NAME <u>JY980</u>	RECEIVED _____	METHOD <u>CLP</u>
TUNE <u>JY974</u>	EXTRACTED <u>10/15/99</u>	FRACTION <u>BNA</u>
STANDARD <u>JY975</u>	ANALYZED <u>10/29/99 18:23</u>	INST <u>MS10</u>
BLANK <u>JY981</u>	VERIFIED _____	ANALYST _____
TAPE/POS _____		BOTTLE _____

% MOISTURE _____	pH _____	LEVEL <u>LOW</u>
(DECANTED) _____	CLEANUP <u>GPC</u>	MATRIX <u>SOIL</u>
DIL FACTOR <u>1.000</u>	EXTRACT METHOD <u>SONC</u>	UNITS <u>ug/Kg</u>

SAMPLE:  
CONDITIONS:

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C315	108-95-2	Phenol	50.00	34.73	69.46
C325	111-44-4	bis(2-Chloroethyl) Ether	50.00	31.09	62.18
C330	95-57-8	2-Chlorophenol	50.00	32.08	64.16
C345	100-51-6	Benzyl Alcohol	50.00	45.06	90.12
C355	95-48-7	2-Methylphenol	50.00	34.99	69.98
C357	108-60-1	2,2'-oxybis(1-Chloropropane)	50.00	33.36	66.72
C365	106-44-5	4-Methylphenol	50.00	36.39	72.78
C370	621-64-7	N-Nitroso-Di-n-Propylamine	50.00	33.15	66.30
C375	67-72-1	Hexachloroethane	50.00	28.25	56.50
C410	98-95-3	Nitrobenzene	50.00	31.64	63.28
C415	78-59-1	Isophorone	50.00	32.73	65.46
C420	88-75-5	2-Nitrophenol	50.00	34.05	68.10
C425	105-67-9	2,4-Dimethylphenol	50.00	29.67	59.34
C430	65-85-0	Benzoic Acid	100.0	68.68	68.68
C435	111-91-1	bis(2-Chloroethoxy) Methane	50.00	32.14	64.28
C440	120-83-2	2,4-Dichlorophenol	50.00	34.78	69.56
C450	91-20-3	Naphthalene	50.00	31.89	63.78
C455	106-47-8	4-Chloroaniline	50.00	20.15	40.30
C460	87-68-3	Hexachlorobutadiene	50.00	30.30	60.60
C465	59-50-7	4-Chloro-3-Methylphenol	50.00	37.72	75.44
C470	91-57-6	2-Methylnaphthalene	50.00	32.54	65.08
C510	77-47-4	Hexachlorocyclopentadiene	50.00	31.06	62.12
C515	88-06-2	2,4,6-Trichlorophenol	50.00	38.78	77.56
C520	95-95-4	2,4,5-Trichlorophenol	50.00	38.86	77.72
C525	91-58-7	2-Chloronaphthalene	50.00	35.04	70.08
C530	88-74-4	2-Nitroaniline	50.00	38.59	77.18
C535	131-11-3	Dimethyl Phthalate	50.00	38.47	76.94
C540	208-96-8	Acenaphthylene	50.00	36.75	73.50
C543	606-20-2	2,6-Dinitrotoluene	50.00	40.32	80.64

LABORATORY CONTROL SPIKE SUMMARY  
SEMIVOLATILE ORGANIC ANALYSIS  
EPA Method 8270 SOIL

CODE	CAS NO	COMPOUND	CONC SPIKED	CONC	RECOVERY % FLGS
C545	99-09-2	3-Nitroaniline	50.00	31.63	63.26
C550	83-32-9	Acenaphthene	50.00	35.23	70.46
C555	51-28-5	2,4-Dinitrophenol	50.00	32.99	65.98
C560	100-02-7	4-Nitrophenol	50.00	40.77	81.54
C565	132-64-9	Dibenzofuran	50.00	36.23	72.46
C570	121-14-2	2,4-Dinitrotoluene	50.00	41.74	83.48
C580	84-66-2	Diethylphthalate	50.00	39.39	78.78
C585	7005-72-3	4-Chlorophenyl-phenylether	50.00	36.75	73.50
C590	86-73-7	Fluorene	50.00	36.12	72.24
C595	100-01-6	4-Nitroaniline	50.00	36.64	73.28
C610	534-52-1	4,6-Dinitro-2-Methylphenol	50.00	39.50	79.00
C615	86-30-6	N-Nitrosodiphenylamine (1)	50.00	38.39	76.78
C625	101-55-3	4-Bromophenyl-phenylether	50.00	38.32	76.64
C630	118-74-1	Hexachlorobenzene	50.00	37.90	75.80
C635	87-86-5	Pentachlorophenol	50.00	40.58	81.16
C640	85-01-8	Phenanthrene	50.00	38.57	77.14
C645	120-12-7	Anthracene	50.00	38.20	76.40
C646	86-74-8	Carbazole	50.00	40.40	80.80
C650	84-74-2	Di-n-Butylphthalate	50.00	39.09	78.18
5	206-44-0	Fluoranthene	50.00	40.51	81.02
C615	129-00-0	Pyrene	50.00	42.22	84.44
C720	85-68-7	Butylbenzylphthalate	50.00	41.96	83.92
C725	91-94-1	3,3'-Dichlorobenzidine	50.00	30.38	60.76
C730	56-55-3	Benzo(a)Anthracene	50.00	41.99	83.98
C740	218-01-9	Chrysene	50.00	40.92	81.84
C745	117-81-7	bis(2-Ethylhexyl)Phthalate	50.00	42.37	84.74
C760	117-84-0	Di-n-Octyl Phthalate	50.00	43.51	87.02
C765	205-99-2	Benzo(b)Fluoranthene	50.00	40.68	81.36
C770	207-08-9	Benzo(k)Fluoranthene	50.00	40.95	81.90
C775	50-32-8	Benzo(a)Pyrene	50.00	40.26	80.52
C780	193-39-5	Indeno(1,2,3-cd)Pyrene	50.00	43.48	86.96
C785	53-70-3	Dibenzo(a,h)Anthracene	50.00	43.98	87.96
C790	191-24-2	Benzo(g,h,i)Perylene	50.00	41.83	83.66

## **PESTICIDE ANALYSES**

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

102SU02

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: 990890-01

Sample wt/vol: 30.0 (g/mL) G Lab File ID: \_\_\_\_\_

Moisture: 4 decanted: (Y/N) N Date Received: 10/13/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

319-84-6-----	alpha-BHC	1.8	U
319-85-7-----	beta-BHC	1.8	U
319-86-8-----	delta-BHC	1.8	U
58-89-9-----	gamma-BHC (Lindane)	1.8	U
76-44-8-----	Heptachlor	1.8	U
309-00-2-----	Aldrin	1.8	U
1024-57-3-----	Heptachlor epoxide	1.8	U
959-98-8-----	Endosulfan I	1.8	U
60-57-1-----	Dieldrin	3.4	U
72-55-9-----	4,4'-DDE	3.4	U
72-20-8-----	Endrin	3.4	U
33213-65-9-----	Endosulfan II	3.4	U
72-54-8-----	4,4'-DDD	3.4	U
1031-07-8-----	Endosulfan sulfate	3.4	U
50-29-3-----	4,4'-DDT	3.4	U
72-43-5-----	Methoxychlor	18	U
53494-70-5-----	Endrin ketone	3.4	U
7421-93-4-----	Endrin aldehyde	3.4	U
5103-71-9-----	alpha-Chlordane	1.8	U
5103-74-2-----	gamma-Chlordane	1.8	U
8001-35-2-----	Toxaphene	180	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: P1015-B3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

EPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/KG</u>	Q
319-84-6-----	alpha-BHC	1.7	U
319-85-7-----	beta-BHC	1.7	U
319-86-8-----	delta-BHC	1.7	U
58-89-9-----	gamma-BHC (Lindane)	1.7	U
76-44-8-----	Heptachlor	1.7	U
309-00-2-----	Aldrin	1.7	U
1024-57-3-----	Heptachlor epoxide	1.7	U
959-98-8-----	Endosulfan I	1.7	U
60-57-1-----	Dieldrin	3.3	U
72-55-9-----	4,4'-DDE	3.3	U
72-20-8-----	Endrin	3.3	U
33213-65-9-----	Endosulfan II	3.3	U
72-54-8-----	4,4'-DDD	3.3	U
1031-07-8-----	Endosulfan sulfate	3.3	U
50-29-3-----	4,4'-DDT	3.3	U
72-43-5-----	Methoxychlor	17	U
53494-70-5-----	Endrin ketone	3.3	U
7421-93-4-----	Endrin aldehyde	3.3	U
5103-71-9-----	alpha-Chlordane	1.7	U
5103-74-2-----	gamma-Chlordane	1.7	U
8001-35-2-----	Toxaphene	170	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS01

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) SOIL Lab Sample ID: P1015-LCS3

Sample wt/vol: 30.0 (g/mL) G Lab File ID: \_\_\_\_\_

% Moisture: 0 decanted: (Y/N) N Date Received: 10/15/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 10/15/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) Y pH: 7.0 Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/KG Q

319-84-6-----	alpha-BHC	9.8	
319-85-7-----	beta-BHC	10	
319-86-8-----	delta-BHC	11	
58-89-9-----	gamma-BHC (Lindane)	10	
76-44-8-----	Heptachlor	9.5	
309-00-2-----	Aldrin	10	
1024-57-3-----	Heptachlor epoxide	11	
959-98-8-----	Endosulfan I	7.4	
60-57-1-----	Dieldrin	12	
72-55-9-----	4,4'-DDE	11	
72-20-8-----	Endrin	12	
33213-65-9-----	Endosulfan II	9.8	
72-54-8-----	4,4'-DDD	11	
1031-07-8-----	Endosulfan sulfate	12	P
50-29-3-----	4,4'-DDT	12	P
72-43-5-----	Methoxychlor	15	J
53494-70-5-----	Endrin ketone	11	
7421-93-4-----	Endrin aldehyde	12	
5103-71-9-----	alpha-Chlordane	1.7	U
5103-74-2-----	gamma-Chlordane	1.7	U
8001-35-2-----	Toxaphene	170	U

FORM I PEST

OLM03.0



1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0A

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/13/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0B

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0C

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0D

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/22/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:

CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0E

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0E

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

EPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK0F

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK0F

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) <u>UG/L</u>	Q
319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1A

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1A

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/13/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO. COMPOUND Q

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1B

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1B

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

319-84-6-----alpha-BHC	0.050	U
319-85-7-----beta-BHC	0.050	U
319-86-8-----delta-BHC	0.050	U
58-89-9-----gamma-BHC (Lindane)	0.050	U
76-44-8-----Heptachlor	0.050	U
309-00-2-----Aldrin	0.050	U
1024-57-3-----Heptachlor epoxide	0.050	U
959-98-8-----Endosulfan I	0.050	U
60-57-1-----Dieldrin	0.10	U
72-55-9-----4,4'-DDE	0.10	U
72-20-8-----Endrin	0.10	U
33213-65-9-----Endosulfan II	0.10	U
72-54-8-----4,4'-DDD	0.10	U
1031-07-8-----Endosulfan sulfate	0.10	U
50-29-3-----4,4'-DDT	0.10	U
72-43-5-----Methoxychlor	0.50	U
53494-70-5-----Endrin ketone	0.10	U
7421-93-4-----Endrin aldehyde	0.10	U
5103-71-9-----alpha-Chlordane	0.050	U
5103-74-2-----gamma-Chlordane	0.050	U
8001-35-2-----Toxaphene	5.0	U

FORM I PEST

OLM03.0



1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1C

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1C

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/21/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

319-84-6-----alpha-BHC	0.050	U
319-85-7-----beta-BHC	0.050	U
319-86-8-----delta-BHC	0.050	U
58-89-9-----gamma-BHC (Lindane)	0.050	U
76-44-8-----Heptachlor	0.050	U
309-00-2-----Aldrin	0.050	U
1024-57-3-----Heptachlor epoxide	0.050	U
959-98-8-----Endosulfan I	0.050	U
60-57-1-----Dieldrin	0.10	U
72-55-9-----4,4'-DDE	0.10	U
72-20-8-----Endrin	0.10	U
33213-65-9-----Endosulfan II	0.10	U
72-54-8-----4,4'-DDD	0.10	U
1031-07-8-----Endosulfan sulfate	0.10	U
50-29-3-----4,4'-DDT	0.10	U
72-43-5-----Methoxychlor	0.50	U
53494-70-5-----Endrin ketone	0.10	U
7421-93-4-----Endrin aldehyde	0.10	U
5103-71-9-----alpha-Chlordane	0.050	U
5103-74-2-----gamma-Chlordane	0.050	U
8001-35-2-----Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1D

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1D

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/22/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

PC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1E

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1E

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

319-84-6-----	alpha-BHC	0.050	U
319-85-7-----	beta-BHC	0.050	U
319-86-8-----	delta-BHC	0.050	U
58-89-9-----	gamma-BHC (Lindane)	0.050	U
76-44-8-----	Heptachlor	0.050	U
309-00-2-----	Aldrin	0.050	U
1024-57-3-----	Heptachlor epoxide	0.050	U
959-98-8-----	Endosulfan I	0.050	U
60-57-1-----	Dieldrin	0.10	U
72-55-9-----	4,4'-DDE	0.10	U
72-20-8-----	Endrin	0.10	U
33213-65-9-----	Endosulfan II	0.10	U
72-54-8-----	4,4'-DDD	0.10	U
1031-07-8-----	Endosulfan sulfate	0.10	U
50-29-3-----	4,4'-DDT	0.10	U
72-43-5-----	Methoxychlor	0.50	U
53494-70-5-----	Endrin ketone	0.10	U
7421-93-4-----	Endrin aldehyde	0.10	U
5103-71-9-----	alpha-Chlordane	0.050	U
5103-74-2-----	gamma-Chlordane	0.050	U
8001-35-2-----	Toxaphene	5.0	U

FORM I PEST

OLM03.0

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PIBLK1F

Lab Name: CEIMIC CORP Contract: TETRA TECH

Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02

Matrix: (soil/water) WATER Lab Sample ID: PIBLK1F

Sample wt/vol: 1000 (g/mL) ML Lab File ID: \_\_\_\_\_

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_ Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) \_\_\_\_\_ Date Extracted: \_\_\_\_\_

Concentrated Extract Volume: \_\_\_\_\_ (uL) Date Analyzed: 10/25/99

Injection Volume: 1.00 (uL) Dilution Factor: 1.00

GPC Cleanup: (Y/N) N pH: \_\_\_\_\_ Sulfur Cleanup: (Y/N) N

CAS NO. COMPOUND CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L Q

319-84-6-----alpha-BHC	0.050	U
319-85-7-----beta-BHC	0.050	U
319-86-8-----delta-BHC	0.050	U
58-89-9-----gamma-BHC (Lindane)	0.050	U
76-44-8-----Heptachlor	0.050	U
309-00-2-----Aldrin	0.050	U
1024-57-3-----Heptachlor epoxide	0.050	U
959-98-8-----Endosulfan I	0.050	U
60-57-1-----Dieldrin	0.10	U
72-55-9-----4,4'-DDE	0.10	U
72-20-8-----Endrin	0.10	U
33213-65-9-----Endosulfan II	0.10	U
72-54-8-----4,4'-DDD	0.10	U
1031-07-8-----Endosulfan sulfate	0.10	U
50-29-3-----4,4'-DDT	0.10	U
72-43-5-----Methoxychlor	0.50	U
53494-70-5-----Endrin ketone	0.10	U
7421-93-4-----Endrin aldehyde	0.10	U
5103-71-9-----alpha-Chlordane	0.050	U
5103-74-2-----gamma-Chlordane	0.050	U
8001-35-2-----Toxaphene	5.0	U

2F  
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: CEIMIC CORP Contract: TETRA TECH  
 Lab Code: CEIMIC Case No.: 770413 SAS No.: \_\_\_\_\_ SDG No.: 02SU02  
 C Column(1): DB608 ID: 0.53(mm) GC Column(2): DB1701 ID: 0.53(mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
	=====	=====	=====	=====	=====	=====	=====	=====
01	PBLK01	54	54	56	53			0
02	102SU02	49	44	57	55			0
03	PLCS01	57	56	59	57			0

QC LIMITS

TCX = Tetrachloro-m-xylene ( 32-103)  
 DCB = Decachlorobiphenyl ( 25-131)

# Column to be used to flag recovery values  
 \* Values outside of contract required QC limits  
 D Surrogate diluted out

## FORMIII-LCS

## LABORATORY CONTROL SPIKE RECOVERY

Lab Name: CEIMIC CORP

Contract: TETRA\_TECH

Lab Code: CEIMIC Case No.: 770413

SAS No.: SDG No.: 02SU02

Method Blank Spike: PLCS01

Laboratory ID: P1015-LCS3

Matrix: Soil

COMPOUND	SPIKE ADDED (ug/Kg)	LCS CONCENTRATION (ug/Kg)	LCS % REC #	QC LIMITS
alpha-BHC	17	9.8	58	38-140
beta-BHC	17	10	59	52-132
delta-BHC	17	11	65	39-99
gamma-BHC (Lindane)	17	10	59	44-131
Heptachlor	17	9.5	56	49-116
Aldrin	17	10	59	39-130
Heptachlor Epoxide	17	11	65	44-123
Endosulfan I	17	7.4	44	56-130
Dieldrin	17	12	71	56-123
4,4'-DDE	17	11	65	47-128
Endrin	17	12	71	54-144
Endosulfan II	17	9.8	58	54-134
4,4'-DDD	17	11	65	52-123
Endosulfan Sulfate	17	12	71	56-130
4,4'-DDT	17	12	71	54-142
Methoxychlor	17	15	89	64-148
Endrin Ketone	17	11	65	58-136
Endrin Aldehyde	17	12	71	49-112

COMMENTS:

FORMIII-LCS

## PCB ANALYSES

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: 102SU02  
Date Sampled: 10/12/99  
Date Sample Received: 10/13/99  
Matrix: Soil  
Percent Solids: 96

Laboratory ID: 990890-01  
Date Sample Extracted: 10/15/99  
Date Sample Analyzed: 10/19/99  
Associated Method Blank: P1015-B1  
Final Extract Volume (mL): 10.0  
Dilution Factor: 1  
  
Concentration in: ug/Kg (ppb) +

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	35.0
Aroclor-1221	ND	70.0
Aroclor-1232	ND	35.0
Aroclor-1242	ND	35.0
Aroclor-1248	ND	35.0
Aroclor-1254	ND	35.0
Aroclor-1260	ND	35.0

ND = Not detected  
+ Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery (%)	QC Limits(%)*
Tetrachloro-m-xylene	73	32 - 103
Decachlorobiphenyl	93	25 - 131

\* These limits are provided for advisory purposes.

Reported by:   JLB  

Approved by:   HK



**METHOD BLANK**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
 by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P1015-BL

Matrix: Soil

Client Project: 990890

Date Sample Extracted: 10/15/99

Date Sample Analyzed: 10/19/99

Concentration in: ug/Kg (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	33.0
Aroclor-1221	ND	66.0
Aroclor-1232	ND	33.0
Aroclor-1242	ND	33.0
Aroclor-1248	ND	33.0
Aroclor-1254	ND	33.0
Aroclor-1260	ND	33.0

ND = Not detected  
 + Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery( %)	QC Limits(%)*
Tetrachloro-m-xylene	83	32 - 103
Decachlorobiphenyl	95	25 - 131

\* These limits are provided for advisory purposes.

Reported by: JLB

Approved by: PL

**LABORATORY CONTROL SUMMARY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
 by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P1015-LCS1

Matrix: Soil

Ceimic Project: 990890

Date Sample Analyzed: 10/19/99

Date Sample Prepared: 10/15/99

Associated Method Blank: P1015-B1

Concentration in: ug/Kg (ppb)+

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	165	140	85	30 - 150
Aroclor-1260	165	170	103	34 - 174

N.D. = Not detected  
 + Dry weight basis.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	32 - 103
Decachlorobiphenyl	100	25 - 131

\* These limits are provided for advisory purposes.

Reported by:   *JB*  

Approved by:   *RL*

## Organic Preparation Laboratory / Sample Preparation Bench Sheets

Matrix: 5071

\*All volumes are in milliliters (ml) unless otherwise noted.

AL 2nd Aliquot

## METAL ANALYSES

**CEIMIC**  
**Corporation**  
*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
TOTAL METALS  
SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Ceimic Project: 990890

Blank ID: PBS

Date Analysis Completed: 10/18/99

Matrix: Soil

Concentration in: mg/Kg (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1015	ND	20
Antimony	1015	ND	5
Arsenic	1015	ND	1
Barium	1015	ND	1
Beryllium	1015	ND	1
Cadmium	1015	ND	1
Calcium	1015	ND	50
Chromium	1015	ND	2
Cobalt	1015	ND	2
Copper	1015	ND	2
Iron	1015	ND	10
Lead	1015	ND	0.5
Magnesium	1015	ND	50
Manganese	1015	ND	1
Mercury	1015	ND	0.1
Nickel	1015	ND	4
Potassium	1015	ND	50
Selenium	1015	ND	1
Silver	1015	ND	1
Sodium	1015	ND	50
Thallium	1015	ND	1
Vanadium	1015	ND	5
Zinc	1015	ND	2

ND = Not Detected

Reported by: 

Approved by: 

**CEIMIC**  
**Corporation**  
*"Analytical Chemistry for Environmental Management"*

TOTAL METALS  
SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Client Sample ID: 102SU02

Date Sampled: 10/12/99

Laboratory ID: 990890-01

Date Sample Received: 10/13/99

Date Analysis Completed: 10/18/99

Matrix: Soil

Concentration in: mg/Kg (ppm) +

Percent Solids: 91

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1015	533	20
Antimony	1015	ND	4
Arsenic	1015	ND	0.9
Barium	1015	1.4	0.9
Beryllium	1015	ND	0.9
Cadmium	1015	ND	0.9
Cobalt	1015	ND	40
Chromium	1015	ND	2
Copper	1015	ND	2
Iron	1015	109	9
Lead	1015	0.6	0.4
Magnesium	1015	ND	40
Manganese	1015	ND	0.9
Mercury	1015	ND	0.1
Nickel	1015	ND	3
Potassium	1015	ND	40
Selenium	1015	ND	0.9
Silver	1015	ND	0.9
Sodium	1015	ND	40
Thallium	1015	ND	0.9
Vanadium	1015	ND	4
Zinc	1015	ND	2

ND = Not Detected

+ Dry weight basis.

Reported by:

*John J. Jones*

Approved by:

*David Totelli*

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**CEIMIC  
Corporation**  
"Analytical Chemistry for Environmental Management"

LABORATORY CONTROL SAMPLE SUMMARY  
TOTAL METALS  
SW846 METHOD 6010B AND 7471A

Client: Tetra Tech NUS

Ceimic Project: 990890

Laboratory Control Spike ID: LCSS

Date Analysis Completed: 10/18/99

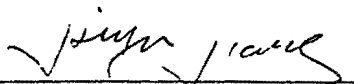
Matrix: Soil

Concentration in: mg/Kg (ppm)

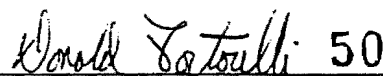
Target Analyte	Preparation Batch	True Value	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Aluminum	1015	5250	3930	74.8	60 - 108
Antimony	1015	33.0	25.8	78.2	37 - 153
Arsenic	1015	93.9	93.9	100.0	71 - 127
Barium	1015	330	267	80.9	67 - 123
Beryllium	1015	42.7	39.0	91.3	80 - 112
Cadmium	1015	97.2	91.2	93.8	76 - 108
Calcium	1015	1320	1160	87.7	80 - 120
Chromium	1015	46.0	42.1	91.5	80 - 112
Cobalt	1015	120	108	90.0	78 - 104
Copper	1015	147	137	93.2	75 - 111
Iron	1015	10200	8700	85.3	46 - 128
Lead	1015	135	122	90.4	79 - 115
Magnesium	1015	2340	2010	86.0	70 - 104
Manganese	1015	166	147	88.6	82 - 104
Mercury	1015	2.17	2.67	* 123.0	67 - 117
Nickel	1015	138	126	91.3	68 - 114
Potassium	1015	1480	1280	86.3	80 - 120
Selenium	1015	96.0	94.2	98.1	59 - 129
Silver	1015	86.7	89.8	103.6	79 - 119
Sodium	1015	845	669	79.2	73 - 107
Thallium	1015	45.7	46.1	100.9	77 - 127
Vanadium	1015	65.1	59.3	91.1	73 - 111
Zinc	1015	75.0	66.1	88.1	79 - 109

\* Outside control chart criteria but within new factories limits.

Reported by:



Approved by:

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**Ceimic Corporation**  
Metals Laboratory  
Metals Preparation Logbook

Date: 10/15/99

Review: BA 10/16/99  
Analyst: TX

Ceimic ID	Client ID	Prep LCS ID	Type	pH	Sample Wt/Vol	Spike ID	Final Vol	Color Before/After	Clarity Before/After	Texture	Artifacts & Comments
990896-10	MW-41A	-	I	<2	100mL	-	100mL	yel. / cgl.	chr. / chr.	-	-
↓ -11	MW-41B	-	-	-	-	-	-	yel. / ↓	chr. / ↓	-	-
Diss 990896-01	MW-29	-	-	-	-	-	-	chrless / chrless	/	-	-
↓ -02	MW-19	-	-	-	-	-	-	↓ / ↓	/	-	-
↓ -03	MW-41C	-	-	-	-	-	-	yel. / yel.	/	-	-
↓ -04	MW-28A	-	-	-	-	-	-	chrless / chrless	/	-	-
↓ -05	MW-28B	-	-	-	-	-	-	/ ↓	/	-	-
↓ -06	MW-12	-	-	-	-	-	-	/ yel.	/	-	-
↓ -08	MW-47A	-	-	-	-	-	-	/ chrless	/	-	-
↓ -09	MW-47B	-	-	-	-	-	-	/ yel.	/	-	-
↓ -10	MW-41A	-	-	-	-	-	-	yel. / ↓	/ ↓	-	-
↓ -11	MW-41B	-	-	-	-	-	-	yel. / ↓	/ ↓	-	-
1015 PRS,	#884, 890	↓	-	-	-	-	-	- / -	- / -	-	-
1015 LCS,	#884, 890	M990908A	-	-	1.00g	-	-	- / -	- / -	-	-
990884-01	SB-03-25	-	-	-	1.14	-	-	brn / yel.	/ chr	med.	-
↓ -03	SB-19-03	-	-	-	1.34	-	-	↓ / ↓	/ ↓	↓	-
990890-01	1025U02	↓	↓	↓	1.28	↓	↓	↓ / ↓	/ ↓	↓	↓

Color = red, blue, yellow, green, orange, violet, white, brown, grey, black, colorless  
Clarity = clear, cloudy, opaque  
Texture = fine (powder), medium (sand), coarse (large crystals or rocks)  
Comments = artifacts and changes (ex. emulsion formation)  
LCS ID includes volume taken and Ceimic ID

Pipette ID: \_\_\_\_\_  
1000 µL = \_\_\_\_\_  
400 µL = \_\_\_\_\_

Prep type ICAP (I) or Zeeman (Z)  
pH = <2 or ≥2 for waters  
Spike ID = includes volume taken and Ceimic ID  
Spike Witness: \_\_\_\_\_

Acid Lot # (s): \*  
H<sub>2</sub>O<sub>2</sub> Lot #: 990927A

\* { 1:1 HNO<sub>3</sub> - M990912A  
conc HNO<sub>3</sub> - 12990651C5  
conc HCl - R990823A5

OK 17 Wheaton 125mL (M9909201)  
1104090-01



**Ceimic Corporation**  
Classical Chemistry Laboratory  
% Solids Logbook

Date/Time In	Date/Time Out	Ceimic ID	Client ID	Tare g	Wet weight		Dry Weight			% Solids	Analyst	Review By
					Gross g	Net g	Gross #1 g	Gross #2 g	Net g			
10/12/97 15:52	10/13/97 09:30	990883-11	GN-5008406	1.27	8.98	7.67	7.97	—	6.70	87.1	DA	Barry
10/18/97 11:15	10/12/97 09:00	990884-01	3B-03-25	1.30	7.35	6.05	6.52	T	5.22	86.3	DA	Barry
↓		-03	3B-19-03	1.30	8.12	6.82	6.80	↓	5.50	80.6	↓	
		110890-01	102500Z	1.30	7.47	8.17	8.77	↓	7.47	91.2	↓	
10/18/97 11:20		990897-01	000276	1.30	8.63	7.33	4.39	T	3.09	42.2	KS	
↓		-02	000277	1.30	9.43	8.13	5.03	↓	3.73	45.9	↓	
		-03	000278	1.30	8.58	7.28	5.67	↓	4.39	60.3	↓	
		-04	000279	1.29	8.72	7.43	5.35	↓	4.06	54.6	↓	
		-04A	↓ 1.29	1.29	8.62	7.33	5.18	↓	3.89	53.1	↓	
		-05	000280	1.30	9.71	8.41	6.04	↓	4.74	56.4	↓	
		-06	000281	1.30	8.73	7.43	5.38	↓	4.08	54.9	↓	
		-07	000282	1.30	8.26	6.96	3.90	↓	2.60	37.4	↓	
		-08	000283	1.30	9.91	8.61	4.56	↓	3.26	37.9	↓	
		-09	000284	1.30	9.09	7.79	4.63	↓	3.33	42.7	↓	
		-10	000285	1.30	9.48	8.18	7.97	↓	6.67	81.5	↓	
		-11	000286	1.30	8.85	7.55	6.53	↓	5.23	69.3	↓	
		-12	000287	1.30	9.08	7.78	7.90	↓	6.60	84.8	↓	
↓	↓	-13	000288	1.29	9.09	7.80	7.57	↓	6.30	80.8	↓	↓

All weights must be carried out to 2 decimal places  
% solids = (net dry weight/ net wet weight)\*100

Dry samples ≥ 12 hours at 10.5°C to 105°C

\* Use only when proving constant weight.

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

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November 19, 1999

Ms. Lee Leck  
Tetra Tech NUS  
Foster Plaza VII  
Pittsburgh, PA 15220

Dear Ms. Leck:

Enclosed are the results for the analyses performed in support of Tetra Tech NUS, Outlying Landing Field Bronson Pensacola, FL Project, Project No. CTO86, SDG No. 022S01. The 3 aqueous samples were taken from the field on October 27, 1999 and received at Ceimic Corporation on October 28, 1999.

These samples are reported under Ceimic Project Number 990922, which can be referenced when inquiring about this project.

If you have any questions or concern regarding this data, please call me at the telephone number listed below.

Sincerely,



Neil Pothier, Ph.D  
Laboratory Manager

NP/djj

Enclosures

## INDEX

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**PROJECT NARRATIVE**

## SDG Narrative

The enclosed data package is in response to Tetra Tech NUS, Outlying Landing Field Bronson Pensacola, FL Project, Project No. CTO86, SDG No. 022S01. Under this SDG there are 5 VOA, 4 SVOA, 4 PEST and 4 PCB analyses for 3 aqueous samples which were received at Ceimic Corporation on October 28, 1999.

This data package includes the analyses for the following samples from SDG No. 022S01:

(1)	Client ID	Ceimic ID	Analysis
	BRO-102-2S-01	990922-01	VOA, SVOA, PEST, PCB
	BRO-102-1S-01 MS/MSD	990922-02 MS/MSD	VOA, SVOA, PEST, PCB
	TB102799-02	990922-03	VOA

The submitted data covers the analyses of the Volatiles (VOA), Semivolatiles (SVOA), Pesticides (PEST) and PCB fractions and their associated blanks and QA/QC. CEIMIC would like to highlight the following points pertaining to the analyses performed for this case:

### (2) Sample Receipt

All samples were received intact and properly preserved.

The cooler temperatures upon receipt are annotated on the Chain of Custodies and on the Ceimic Sample Receiving Checklist.

### (3) Instrumentation and Column Identification

The following instruments were used for the analyses:

#### GC/MS Analysis

##### A. VOA

MS12: HP5973 GC/MS using 20 m x 0.18 mm ID, 1  $\mu$ m film thickness  
DB-624 capillary column.

MS15: HP5970B GC/MS using 105 m x 0.53 mm ID, 3  $\mu$ m film thickness  
VOCOL megabore column.

B. SVOA

MS1: HP5970B GC/MS using 30 m x 0.25 mm ID, 0.5  $\mu$ m film thickness DB-5 fused silica capillary column.

MS10: HP5970B GC/MS using 30 m x 0.25 mm ID, 0.5  $\mu$ m film thickness DB-5 fused silica capillary column.

GC Analysis

C. PEST

AD4\_1: HP5890II using 30 m x 0.53 mm ID, 0.83  $\mu$ m film thickness DB-5 megabore column GC-5 (J.W. Scientific).

AD5\_1: HP5890II using 30 m x 0.53 mm ID, 0.83  $\mu$ m film thickness DB-1701 megabore column GC-5 (J.W. Scientific).

D. PCB

AD17\_1: HP5890II using 30 m x 0.53 mm ID, 0.83  $\mu$ m film thickness DB-608 megabore column GC-6 (J.W. Scientific).

AD18\_1: HP5890II using 30 m x 0.53 mm ID, 0.83  $\mu$ m film thickness DB-5 megabore column GC-6 (J.W. Scientific).

(4) Sample Information

Additional qualifier: "x"

An "x" qualifier is flagged by Formaster software whenever the data is manually edited.

The letters "M" for GC/MS and "FF" for GC are used on the raw data of the quantitation report whenever a manual integration is performed. These data manipulations are done only to correct for computer integration error.

A. VOA Fraction (Method 8260B)

No noncompliance is noted.

B. SVOA Fraction (Method 8270C)

No noncompliance is noted.

C. PEST Fraction (Method 8081A)

Sample O1022S01 had low DCB recovery on both columns.

D. PCB Fraction Method 8082

No noncompliance is noted.

E. PAH Fraction Method 8310


No noncompliance is noted.

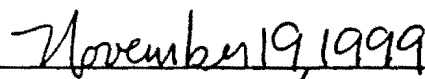
Deviation from the SOW

None other than specified above.

End of SDG Narrative

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

  
Neil Potluer, Laboratory Manager

  
Date

**CHAIN OF CUSTODY**



PROJECT NO: C7086		SITE NAME: DLF Bronson		PROJECT MANAGER AND PHONE NUMBER Terry Hanson (850) 385-9899		LABORATORY NAME AND CONTACT: Ceimic Corporation							
SAMPLERS (SIGNATURE) <i>[Signature]</i>				FIELD OPERATIONS LEADER AND PHONE NUMBER Roger Franklin		ADDRESS 10 Dean Knouse Dr.							
				CARRIER/WAYBILL NUMBER 809060213798		CITY, STATE Nairangans #, RI							
STANDARD TAT <input checked="" type="checkbox"/> RUSH TAT <input type="checkbox"/>						CONTAINER TYPE PLASTIC (P) or GLASS (G)							
<input type="checkbox"/> 24 hr. <input type="checkbox"/> 48 hr. <input type="checkbox"/> 72 hr. <input type="checkbox"/> 7 day <input type="checkbox"/> 14 day						PRESERVATIVE USED							
DATE YEAR	TIME	SAMPLE ID	MATRIX	GRAB (G) COMP (C)	No. OF CONTAINERS	TYPE OF ANALYSIS					COMMENTS		
						TCL VOC	TCL SVOC	Pest / PCB	THAL Metals	Cyanide			
10/27	1620	BRO-102-25-01	GW	G	9	X	X	X	X	X			
10/27	1555	BRO-102-15-01	GW	G	9	X	X	X	X	X			
10/27	1555	BRO-102-15-01m	GW	G	9	X	X	X	X	X		MS/MSD	
10/27	0700	TB 102799-02	GW	G	2	X							
1. RELINQUISHED BY <i>[Signature]</i>						1. RECEIVED BY <i>[Signature]</i>						DATE 10/25/99	TIME 10 AM
2. RELINQUISHED BY						2. RECEIVED BY <i>[Signature]</i>						DATE	TIME
3. RELINQUISHED BY						3. RECEIVED BY						DATE	TIME
COMMENTS													

CEIMIC CORPORATION  
Sample Receiving Checklist

LIMS # 990922

Cooler Number: 1 + 2

Client: Tetra Tech NUS

Number of Coolers: 2

Project: OLF Bronson  
CTO 86

Date Received: 10/28/99

A. PRELIMINARY EXAMINATION PHASE: Date cooler was opened: 10/28/99

1. Have designated person initial here to acknowledge receipt of cooler: KW (date): 10/28/99

2. Did cooler come with a shipping slip (airbill, etc.)? YES NO

If YES, enter carrier name & airbill number here: Ex 809060213798

3. Were custody seals on outside of cooler? YES NO

How many & where: 2 front/back seal date: 10/27/99 seal name: ECL

4. Were custody seals unbroken and intact at the date and time of arrival YES NO

5. Did you screen samples for radioactivity using a Geiger Counter? Reading: ND YES NO

6. Chain of Custody #: \_\_\_\_\_

7. Were custody papers sealed in a plastic bag & taped inside to the lid? YES NO

8. Were custody papers filled out properly (ink, signed, etc.)? YES NO

9. Did you sign custody papers in the appropriate place? YES NO

10. Was project identifiable from custody papers? YES NO

11. If required, was enough ice used? Cooler Temperature: 2 °C Type of ice: cubes YES NO  
2 °C

B. LOG-IN PHASE: Date samples were logged-in: 10/28/99

by (print): Karen Williamson (sign): Karen Williamson

12. Describe type of packing in cooler: +

13. Were all bottles sealed in separate plastic bags? YES NO

14. Did all bottles arrive unbroken and were labels in good condition? YES NO

15. Were all bottle labels complete (ID, date, time, signature, preservative, etc.)? YES NO

16. Did all bottle labels agree with custody papers? YES NO

17. Were correct containers used for the tests indicated? YES NO  
CA in small poly, but 2 ~250 mL  
should be in 1 L poly

18. Were samples received at the correct pH? YES NO

19. Was a sufficient amount of sample sent for tests indicated? not sure YES NO

20. Were bubbles absent in VOA samples? If NO, list by sample#: TB102799-02  
BR0-102-15-01 YES NO

21. Laboratory labelling verified by: (Initials): KW (date): 10/28/99

**VOLATILE ANALYSES**

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: V151103-B2

Date Sample Analyzed: 11/03/99

Matrix: Aqueous

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
V Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by:  09

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: V151103-B2

Date Sample Analyzed: 11/03/99

Matrix: Aqueous

Concentration in: µg/L (ppb)


Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	71	62 - 139
Dibromofluoromethane	95	75 - 125
Toluene-d8	98	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by: 

Approved by:  10

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by:  11

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-01

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	75	62 - 139
Dibromofluoromethane	99	75 - 125
Toluene-d8	94	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by:                     

Approved by:                      12

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/04/99


Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by: 

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

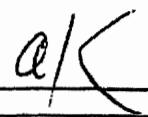
Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Toluene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	74	62 - 139
Dibromofluoromethane	95	75 - 125
Toluene-d8	96	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by: 

Approved by: 

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CEIMIC  
Corporation

"Analytical Chemistry for Environmental Management"

MATRIX SPIKE/MATRIX SPIKE DUPLICATE SUMMARY  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
1,1-Dichloroethene	116	118	2	68	68 - 124
Trichloroethene	103	108	4	75	75 - 120
Benzene	105	109	4	78	78 - 127
Toluene	112	116	4	71	71 - 132
Chlorobenzene	108	114	6	77	77 - 128

\* These limits are provided for advisory purposes.

Surrogate Spike Recovery

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	80	86	62 - 139
Dibromofluoromethane	100	108	75 - 125
Toluene-d8	100	106	75 - 125
Bromofluorobenzene	100	94	75 - 125

Reported by:                     

Approved by:                     

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB102799-02

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-03

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Chloromethane	ND	1
Bromomethane	ND	1
Vinyl Chloride	ND	1
Chloroethane	ND	1
Methylene Chloride	ND	1
Acetone	ND	5
Carbon Disulfide	ND	1
1,1-Dichloroethene	ND	1
1,1-Dichloroethane	ND	1
1,2-Dichloroethene (total)	ND	1
Chloroform	ND	1
1,2-Dichloroethane	ND	1
2-Butanone	ND	5
1,1,1-Trichloroethane	ND	1
Carbon Tetrachloride	ND	1
Bromodichloromethane	ND	1
1,2-Dichloropropane	ND	1
trans-1,3-Dichloropropene	ND	1
Trichloroethene	ND	1
Dibromochloromethane	ND	1
1,1,2-Trichloroethane	ND	1
Benzene	ND	1
cis-1,3-Dichloropropene	ND	1
Bromoform	ND	1
2-Hexanone	ND	5
4-Methyl-2-Pentanone	ND	5

Reported by: 

Approved by:  16

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
VOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Client Sample ID: TB102799-02

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-03

Date Sample Analyzed: 11/04/99

Associated Method Blank: V151103-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Tetrachloroethene	ND	1
1,1,2,2-Tetrachloroethane	ND	1
Trichloroethene	ND	1
Chlorobenzene	ND	1
Ethylbenzene	ND	1
Styrene	ND	1
Total Xylenes	ND	1

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	69	62 - 139
Dibromofluoromethane	93	75 - 125
Toluene-d8	97	75 - 125
Bromofluorobenzene	82	75 - 125

Reported by: 

Approved by:  17

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
VOLATILE BLANK SPIKE  
SW846 METHOD 8260B**

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike ID: V151103-LCS

Date Sample Analyzed: 11/03/99

Matrix: Aqueous

Associated Method Blank: V151103-B2

Concentration:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
1,1-Dichloroethene	5	6	111	68 - 124
Trichloroethene	5	5	101	75 - 120
Benzene	5	5	102	78 - 127
Toluene	5	5	109	71 - 132
Chlorobenzene	5	5	109	77 - 128

\* These limits are provided for advisory purposes.

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)
1,2-Dichloroethane-d4	75	62 - 139
Dibromofluoromethane	97	75 - 125
Toluene-d8	104	75 - 125
Bromofluorobenzene	88	75 - 125

Reported by: 

Approved by:  **18**

## **SEMIVOLATILE ORGANIC ANALYSES**

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Blank ID: S1030-B2

Matrix: Aqueous -

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate	ND	5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5
Diethylphthalate	ND	5

Reported by: TS

Approved by: AK 20

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C

Client: Tetra Tech NUS

Blank ID: S1030-B2

Matrix: Aqueous -

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
4-Methylphenol-phenylether	ND	5
1,2,3-Trichlorobenzene	ND	5
Pentachlorophenol	ND	10
Phenanthrene	ND	5
Anthracene	ND	5
Carbazole	ND	5
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10

ND = Not detected

Reported by: TS

Approved by: G/K

21



**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**METHOD BLANK  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Blank ID: S1030-B2

Matrix: Aqueous -

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Concentration in:  $\mu\text{g/L}$  (ppb)

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Fluorophenol	51	21 - 110
Phenol-d5	39	10 - 110
Nitrobenzene-d5	77	35 - 114
2-Fluorobiphenyl	75	43 - 116
2,4,6-Tribromophenol	68	10 - 123
Terphenyl-d14	67	33 - 141

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: q/c 22

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-2S-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-01  
Date Sample Analyzed: 11/02/99  
Date Sample Extracted: 10/30/99  
Associated Method Blank: S1030-B2  
Dilution Factor: 1  
Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate	ND	5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2-Nitrotoluene	ND	5
Diethylphthalate	ND	5

Reported by: TS

Approved by: G/K 23

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-2S-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-01  
Date Sample Analyzed: 11/02/99  
Date Sample Extracted: 10/30/99  
Associated Method Blank: S1030-B2  
Dilution Factor: 1  
Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
4-Bromophenol-phenylether	ND	5
Hexachlorobenzene	ND	5
Pentachlorophenol	ND	10
Phenanthrene	ND	5
Anthracene	ND	5
Carbazole	ND	5
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10

ND = Not detected

Reported by: TS

Approved by: gk

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-2S-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-01  
Date Sample Analyzed: 11/02/99  
Date Sample Extracted: 10/30/99  
Associated Method Blank: S1030-B2  
Dilution Factor: 1  
Concentration in:  $\mu\text{g/L}$  (ppb)

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Fluorophenol	41	21 - 110
Phenol-d5	29	10 - 110
Nitrobenzene-d5	78	35 - 114
2-Nitrophenyl	71	43 - 116
2,4,6-Tribromophenol	68	10 - 123
Terphenyl-d14	57	33 - 141

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: AK

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-1S-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-02  
Date Sample Analyzed: 11/02/99  
Date Sample Extracted: 10/30/99  
Associated Method Blank: S1030-B2  
Dilution Factor: 1  
Concentration in:  $\mu\text{g/L}$  (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Phenol	ND	5
bis(2-Chloroethyl)Ether	ND	5
2-Chlorophenol	ND	5
1,3-Dichlorobenzene	ND	5
1,4-Dichlorobenzene	ND	5
1,2-Dichlorobenzene	ND	5
2-Methylphenol	ND	5
2,2'-oxybis(1-Chloropropane)	ND	5
4-Methylphenol	ND	5
N-Nitroso-Di-n-Propylamine	ND	5
Hexachloroethane	ND	5
Nitrobenzene	ND	5
Isophorone	ND	5
2-Nitrophenol	ND	5
2,4-Dimethylphenol	ND	5
bis(2-Chloroethoxy)Methane	ND	5
2,4-Dichlorophenol	ND	5
1,2,4-Trichlorobenzene	ND	5
Naphthalene	ND	5
4-Chloroaniline	ND	5
Hexachlorobutadiene	ND	5
4-Chloro-3-methylphenol	ND	5
2-Methylnaphthalene	ND	5
Hexachlorocyclopentadiene	ND	5
2,4,6-Trichlorophenol	ND	5
2-Chloronaphthalene	ND	5
2-Nitroaniline	ND	10
Dimethyl Phthalate-	ND	5
Acenaphthylene	ND	5
3-Nitroaniline	ND	10
Acenaphthene	ND	5
2,4-Dinitrophenol	ND	10
4-Nitrophenol	ND	10
Dibenzofuran	ND	5
2,4-Dinitrotoluene	ND	5
2,6-Dinitrotoluene	ND	5
Diethylphthalate	ND	5

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Reported by: TS

Approved by: AK

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

TARGET COMPOUND LIST (TCL)  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-IS-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-02  
Date Sample Analyzed: 11/02/99  
Date Sample Extracted: 10/30/99  
Associated Method Blank: S1030-B2  
Dilution Factor: 1  
Concentration in: µg/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
4-Chlorophenyl-phenylether	ND	5
Fluorene	ND	5
4-Nitroaniline	ND	10
4,6-Dinitro-2-Methylphenol	ND	10
N-Nitrosodiphenylamine (1)	ND	5
4-P-mophenol-phenylether	ND	5
1-chlorobenzene	ND	5
Polychlorophenol	ND	10
Phenanthrene	ND	5
Anthracene	ND	5
Carbazole	ND	5
Di-n-butylphthalate	ND	5
Fluoranthene	ND	5
Pyrene	ND	5
Butylbenzylphthalate	ND	5
3,3'-Dichlorobenzidine	ND	5
Benzo(a)anthracene	ND	5
bis(2-Ethylhexyl)Phthalate	ND	5
Chrysene	ND	5
Di-n-Octyl Phthalate	ND	5
Benzo(b)fluoranthene	ND	5
Benzo(k)fluoranthene	ND	5
Benzo(a)pyrene	ND	5
Indeno(1,2,3-cd)pyrene	ND	5
Dibenzo(a,h)anthracene	ND	5
Benzo(g,h,i)perylene	ND	5
2,4,5-Trichlorophenol	ND	10

ND = Not detected

Reported by: TS

Approved by: AK 27

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**TARGET COMPOUND LIST (TCL)  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-IS-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-02  
Date Sample Analyzed: 11/02/99  
Date Sample Extracted: 10/30/99  
Associated Method Blank: S1030-B2  
Dilution Factor: 1  
Concentration in:  $\mu\text{g/L}$  (ppb)

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Fluorophenol	47	21 - 110
Phenol-d5	33	10 - 110
Nitrobenzene-d5	79	35 - 114
2-Fluorobiphenyl	76	43 - 116
2,4,6-Tribromophenol	67	10 - 123
Terphenyl-d14	62	33 - 141

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: Q/C 28

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: S1030-B2

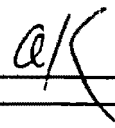
Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
1	36	38	7	10	10 - 125
bis(2-Chloroethyl)Ether	81	72	11	44	44 - 125
2-Chlorophenol	67	66	0	41	41 - 125
1,3-Dichlorobenzene	72	68	7	36	36 - 125
1,4-Dichlorobenzene	74	61	18	30	30 - 125
1,2-Dichlorobenzene	72	64	11	42	42 - 155
2-Methylphenol	63	69	9	25	25 - 125
2,2'-oxybis(1-Chloropropane)	92	82	12	36	36 - 166
4-Methylphenol	64	68	6	33	33 - 125
N-Nitroso-Di-n-Propylamine	88	81	8	37	37 - 125
Hexachloroethane	76	67	12	25	25 - 153
Nitrobenzene	84	74	12	46	46 - 133
Isophorone	81	78	4	26	26 - 175
2-Nitrophenol	77	72	7	44	44 - 125
2,4-Dimethylphenol	66	64	3	1	1 - 139
bis(2-Chloroethoxy)Methane	80	75	6	49	49 - 125
2,4-Dichlorophenol	75	71	4	46	46 - 125
1,2,4-Trichlorobenzene	73	65	12	44	44 - 142
Naphthalene	73	67	9	50	50 - 125
4-Chloroaniline	79	74	7	1	1 - 136
Hexachlorobutadiene	74	66	11	25	25 - 125
4-Chloro-3-methylphenol	83	86	3	44	44 - 125
2-Methylnaphthalene	77	71	8	41	41 - 125
Hexachlorocyclopentadiene	72	60	18	18	18 - 125
2,4,6-Trichlorophenol	79	80	2	39	39 - 128

Reported by: TS

Approved by: 

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: S1030-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in: µg/L (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
2-Chloronaphthalene	75	73	2	60	60 - 125
2-Nitroaniline	98	94	4	50	50 - 125
Dimethyl Phthalate	83	81	3	25	25 - 175
Acenaphthylene	77	75	3	47	47 - 124
3-Nitroaniline	87	87	0	29	29 - 94
Acenaphthene	74	75	2	49	49 - 125
2,4-Dinitrophenol	83	75	10	10	10 - 151
4-Nitrophenol	37	40	8	10	10 - 131
Dibenzofuran	73	71	2	52	52 - 125
2,4-Dinitrotoluene	86	89	3	39	39 - 139
2,6-Dinitrotoluene	93	91	2	51	51 - 125
Diethylphthalate	81	83	3	37	37 - 125
4-Chlorophenyl-phenylether	79	78	2	51	51 - 132
Fluorene	78	78	0	48	48 - 139
4-Nitroaniline	100	90	10	40	40 - 143
4,6-Dinitro-2-Methylphenol	83	79	5	26	26 - 134
N-Nitrosodiphenylamine (1)	83	82	2	27	27 - 125
4-Bromophenol-phenylether	79	79	1	53	53 - 127
Hexachlorobenzene	78	77	1	46	46 - 133
Pentachlorophenol	50	20	84	28	28 - 136
Phenanthrene	77	79	3	54	54 - 125
Anthracene	78	78	1	45	45 - 165
Carbazole	85	81	5	25	25 - 125
Di-n-butylphthalate	82	82	0	34	34 - 126
Fluoranthene	81	79	2	47	47 - 125

Reported by: TS

Approved by: 9/1

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Matrix Spike ID: 990922-02

Client Sample ID: BRO-102-1S-01

Date Sample Analyzed: 11/02/99

Date Sampled: 10/27/99

Date Sample Extracted: 10/30/99

Date Sample Received: 10/28/99

Associated Method Blank: S1030-B2

Matrix: Aqueous

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

Spike Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
Pyrene	83	85	3	47	47 - 136
Butylbenzylphthalate	88	88	1	26	26 - 125
3,3'-Dichlorobenzidine	83	82	2	1	1 - 175
Benzo(a)anthracene	84	84	0	51	51 - 133
bis(2-Ethylhexyl)Phthalate	85	88	4	33	33 - 129
Chrysene	85	85	0	55	55 - 133
Di-n-Octyl Phthalate	120	117	3	38	38 - 127
Benzo(b)fluoranthene	97	102	6	37	37 - 125
Benzo(k)fluoranthene	109	97	12	37	37 - 125
Benzo(a)pyrene	92	88	5	41	41 - 125
Indeno(1,2,3-cd)pyrene	55	62	13	27	27 - 160
Dibenzo(a,h)anthracene	60	71	15	50	50 - 125
Benzo(g,h,i)perylene	46	54	16	34	34 - 149
2,4,5-Trichlorophenol	80	81	2	25	25 - 175

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: AK

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
SEMIVOLATILE ORGANICS ANALYSIS  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Matrix Spike ID: 990922-02

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Dilution Factor: 1

Concentration in:  $\mu\text{g/L}$  (ppb)

**Surrogate Spike Recovery**

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
2-Fluorophenol	48	55	21 - 110
Phenol-d5	34	37	10 - 110
Nitrobenzene-d5	81	71	35 - 114
2-Fluorobiphenyl	73	71	43 - 116
2,4,6-Tribromophenol	77	78	10 - 123
Terphenyl-d14	76	77	33 - 141

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: a/K 32

# CEIMIC Corporation

*"Analytical Chemistry for Environmental Management"*

## LABORATORY CONTROL SAMPLE SUMMARY SEMIVOLATILE BLANK SPIKE SW846 METHOD 8270C

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike ID: S1030-LCS2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Recovery(%)	QC Limits(%)*
Phenol	50.0	37	10 - 125
bis(2-Chloroethyl)Ether	50.0	64	44 - 125
2-Nitrophenol	50.0	61	41 - 125
1,3-Dichlorobenzene	50.0	58	36 - 125
1,4-Dichlorobenzene	50.0	55	30 - 125
1,2-Dichlorobenzene	50.0	59	42 - 155
2-Methylphenol	50.0	64	25 - 125
2,2'-oxybis(1-Chloropropane)	50.0	71	36 - 166
4-Methylphenol	50.0	62	33 - 125
N-Nitroso-Di-n-Propylamine	50.0	72	37 - 125
Hexachloroethane	50.0	56	25 - 153
Nitrobenzene	50.0	67	46 - 133
Isophorone	50.0	71	26 - 175
2-Nitrophenol	50.0	68	44 - 125
2,4-Dimethylphenol	50.0	57	1 - 139
bis(2-Chloroethoxy)Methane	50.0	69	49 - 125
2,4-Dichlorophenol	50.0	64	46 - 125
1,2,4-Trichlorobenzene	50.0	59	44 - 142
Naphthalene	50.0	61	50 - 125
4-Chloroaniline	50.0	74	1 - 136
Hexachlorobutadiene	50.0	61	25 - 125
4-Chloro-3-methylphenol	50.0	80	44 - 125
2-Methylnaphthalene	50.0	66	41 - 125
Hexachlorocyclopentadiene	50.0	52	18 - 125
2,4,6-Trichlorophenol	50.0	73	39 - 128
2-Chloronaphthalene	50.0	65	60 - 125
2-Nitroaniline	50.0	88	50 - 125
Dimethyl Phthalate	50.0	75	25 - 175
Acenaphthylene	50.0	67	47 - 125
3-Nitroaniline	50.0	90	29 - 94
Acenaphthene	50.0	67	49 - 125
2,4-Dinitrophenol	50.0	64	10 - 151
4-Nitrophenol	50.0	39	10 - 131

Reported by: TS

Approved by: g/k 33

**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
SEMIVOLATILE BLANK SPIKE  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank Spike ID: S1030-LCS2

Date Sample Analyzed: 11/02/99

Matrix: Aqueous

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in:  $\mu\text{g/L}$  (ppb)

Spike Compound	Spike Added	Blank Spike Recovery(%)	QC Limits(%)*
Dibenzofuran	50.0	66	52 - 125
2,4-Dinitrotoluene	50.0	79	39 - 139
2,6-Dinitrotoluene	50.0	80	51 - 125
Diethylphthalate	50.0	76	37 - 125
4-Chlorophenyl-phenylether	50.0	72	51 - 132
Fluorene	50.0	72	48 - 139
4-Nitroaniline	50.0	95	40 - 143
4,6-Dinitro-2-Methylphenol	50.0	68	26 - 134
N-Nitrosodiphenylamine (1)	50.0	75	27 - 125
4-Bromophenol-phenylether	50.0	76	53 - 127
Hexachlorobenzene	50.0	73	46 - 133
Pentachlorophenol	50.0	27	28 - 136
Phenanthrene	50.0	72	54 - 125
Anthracene	50.0	74	45 - 165
Carbazole	50.0	81	25 - 125
Di-n-butylphthalate	50.0	78	34 - 126
Fluoranthene	50.0	76	47 - 125
Pyrene	50.0	76	47 - 136
Butylbenzylphthalate	50.0	80	26 - 125
3,3'-Dichlorobenzidine	50.0	77	1 - 175
Benzo(a)anthracene	50.0	81	51 - 133
bis(2-Ethylhexyl)Phthalate	50.0	81	33 - 129
Chrysene	50.0	79	55 - 133
Di-n-Octyl Phthalate	50.0	109	38 - 127
Benzo(b)fluoranthene	50.0	89	37 - 125
Benzo(k)fluoranthene	50.0	100	37 - 125
Benzo(a)pyrene	50.0	83	41 - 125
Indeno(1,2,3-cd)pyrene	50.0	52	27 - 160
Dibenzo(a,h)anthracene	50.0	59	50 - 125
Benzo(g,h,i)perylene	50.0	44	34 - 149
2,4,5-Trichlorophenol	50.0	74	25 - 175

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: AK

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**CEIMIC  
Corporation**

*"Analytical Chemistry for Environmental Management"*

**LABORATORY CONTROL SAMPLE SUMMARY  
SEMIVOLATILE BLANK SPIKE  
SW846 METHOD 8270C**

Client: Tetra Tech NUS

Blank Spike ID: S1030-LCS2

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/02/99

Date Sample Extracted: 10/30/99

Associated Method Blank: S1030-B2

Concentration in:  $\mu\text{g/L}$  (ppb)

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
2-Nitrophenol	51	21 - 110
Phenyl-d5	34	10 - 110
Nitrobenzene-d5	66	35 - 114
2-Fluorobiphenyl	63	43 - 116
2,4,6-Tribromophenol	75	10 - 123
Terphenyl-d14	70	33 - 141

\* These limits are provided for advisory purposes.

Reported by: TS

Approved by: AK 35

## **PESTICIDE ANALYSES**

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

01021S01

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix: (soil/water) WATER

Lab Sample ID: 990922-02

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A4F00094

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF.

Date Extracted: 10/31/99

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 11/02/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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319-84-6-----alpha-BHC	0.010	U
319-85-7-----beta-BHC	0.010	U
319-86-8-----delta-BHC	0.010	U
58-89-9-----gamma-BHC (Lindane)	0.010	U
76-44-8-----Heptachlor	0.010	U
309-00-2-----Aldrin	0.010	U
1024-57-3-----Heptachlor epoxide	0.010	U
959-98-8-----Endosulfan I	0.010	U
60-57-1-----Dieldrin	0.020	U
72-55-9-----4,4'-DDE	0.020	U
72-20-8-----Endrin	0.020	U
33213-65-9-----Endosulfan II	0.020	U
72-54-8-----4,4'-DDD	0.020	U
1031-07-8-----Endosulfan sulfate	0.020	U
50-29-3-----4,4'-DDT	0.020	U
72-43-5-----Methoxychlor	0.10	U
53494-70-5-----Endrin ketone	0.020	U
7421-36-3-----Endrin aldehyde	0.020	U
5103-71-9-----alpha-Chlordane	0.010	U
5103-74-2-----gamma-Chlordane	0.010	U
8001-35-2-----Toxaphene	1.0	U



1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

O1021S01MS

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix: (soil/water) WATER

Lab Sample ID: 990922-02MS

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A4F00095

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 10/31/99

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 11/02/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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319-84-6-----	alpha-BHC	0.074	
319-85-7-----	beta-BHC	0.079	
319-86-8-----	delta-BHC	0.081	
58-89-9-----	gamma-BHC (Lindane)	0.077	
76-44-8-----	Heptachlor	0.064	
309-00-2-----	Aldrin	0.073	
1024-57-3-----	Heptachlor epoxide	0.074	P
959-98-8-----	Endosulfan I	0.028	P
60-57-1-----	Dieldrin	0.077	
72-55-9-----	4,4'-DDE	0.081	
72-20-8-----	Endrin	0.084	
33213-65-9-----	Endosulfan II	0.042	
72-54-8-----	4,4'-DDD	0.079	
1031-07-8-----	Endosulfan sulfate	0.075	P
50-29-3-----	4,4'-DDT	0.074	P
72-43-5-----	Methoxychlor	0.096	J
53494-70-5-----	Endrin ketone	0.082	
7421-36-3-----	Endrin aldehyde	0.080	P
5103-71-9-----	alpha-Chlordane	0.074	P
5103-74-2-----	gamma-Chlordane	0.076	
8001-35-2-----	Toxaphene	1.0	U

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

O1021S01MSD

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix: (soil/water) WATER

Lab Sample ID: 990922-02MSD

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A4F00108

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 10/31/99

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 11/04/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 14.0

Sulfur Cleanup: (Y/N) N

CONCENTRATION UNITS:  
(ug/L or ug/Kg) UG/L

CAS NO.

COMPOUND

Q

319-84-6-----	alpha-BHC	0.085	
319-85-7-----	beta-BHC	0.085	
319-86-8-----	delta-BHC	0.090	
58-89-9-----	gamma-BHC (Lindane)	0.089	
76-44-8-----	Heptachlor	0.074	
309-00-2-----	Aldrin	0.086	
1024-57-3-----	Heptachlor epoxide	0.086	P
959-98-8-----	Endosulfan I	0.032	P
60-57-1-----	Dieldrin	0.087	
72-55-9-----	4,4'-DDE	0.087	
72-20-8-----	Endrin	0.093	
33213-65-9-----	Endosulfan II	0.047	
72-54-8-----	4,4'-DDD	0.035	
1031-07-8-----	Endosulfan sulfate	0.085	P
50-29-3-----	4,4'-DDT	0.081	P
72-43-5-----	Methoxychlor	0.10	
53494-70-5-----	Endrin ketone	0.090	
7421-36-3-----	Endrin aldehyde	0.091	
5103-71-9-----	alpha-Chlordane	0.086	P
5103-74-2-----	gamma-Chlordane	0.087	
8001-35-2-----	Toxaphene	1.0	U

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

01022S01

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix: (soil/water) WATER

Lab Sample ID: 990922-01

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A4F00093

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: 10/28/99

Extraction: (SepF/Cont/Sonc) SEPF.

Date Extracted: 10/31/99

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 11/02/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

319-84-6-----	alpha-BHC	0.010	U
319-85-7-----	beta-BHC	0.010	U
319-86-8-----	delta-BHC	0.010	U
58-89-9-----	gamma-BHC (Lincane)	0.010	U
76-44-8-----	Heptachlor	0.010	U
309-00-2-----	Aldrin	0.010	U
1024-57-3-----	Heptachlor epoxide	0.010	U
959-98-8-----	Endosulfan I	0.010	U
60-57-1-----	Dieldrin	0.020	U
72-55-9-----	4,4'-DDE	0.020	U
72-20-8-----	Endrin	0.020	U
33213-65-9-----	Endosulfan II	0.020	U
72-54-8-----	4,4'-DDD	0.020	U
1031-07-8-----	Endosulfan sulfate	0.020	U
50-29-3-----	4,4'-DDT	0.020	U
72-43-5-----	Methoxychlor	0.10	U
53494-70-5-----	Endrin ketone	0.020	U
7421-36-3-----	Endrin aldehyde	0.020	U
5103-71-9-----	alpha-Chlordane	0.010	U
5103-74-2-----	gamma-Chlordane	0.010	U
8001-35-2-----	Toxaphene	1.0	U

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PLCS01

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix: (soil/water) WATER

Lab Sample ID: P1031-LCS1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A4F00092

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 10/31/99

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 11/02/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

319-84-6-----	alpha-BHC	0.084	
319-85-7-----	beta-BHC	0.084	
319-86-8-----	delta-BHC	0.086	
58-89-9-----	gamma-BHC (Lindane)	0.085	
76-44-8-----	Heptachlor	0.074	
309-00-2-----	Aldrin	0.082	
1024-57-3-----	Heptachlor epoxide	0.083	
959-98-8-----	Endosulfan I	0.031	P
60-57-1-----	Dieldrin	0.084	
72-55-9-----	4,4'-DDE	0.086	
72-20-8-----	Endrin	0.090	
33213-65-9-----	Endosulfan II	0.045	
72-54-8-----	4,4'-DDD	0.085	
1031-07-8-----	Endosulfan sulfate	0.081	P
50-29-3-----	4,4'-DDT	0.080	P
72-43-5-----	Methoxychlor	0.10	
53494-70-5-----	Endrin ketone	0.092	
7421-36-3-----	Endrin aldehyde	0.090	P
5103-71-9-----	alpha-Chlordane	0.080	P
5103-74-2-----	gamma-Chlordane	0.082	
8001-35-2-----	Toxaphene	1.0	U

1D  
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLK01

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix: (soil/water) WATER

Lab Sample ID: P1031-B1

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: A4F00090

% Moisture: \_\_\_\_\_ decanted: (Y/N) \_\_\_\_\_

Date Received: \_\_\_\_\_

Extraction: (SepF/Cont/Sonc) SEPF

Date Extracted: 10/31/99

Concentrated Extract Volume: 2000 (uL)

Date Analyzed: 11/02/99

Injection Volume: 1.0 (uL)

Dilution Factor: 1.0

GPC Cleanup: (Y/N) N

pH: 7.0

Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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319-84-6-----	alpha-BHC	0.010	U
319-85-7-----	beta-BHC	0.010	U
319-86-8-----	delta-BHC	0.010	U
58-89-9-----	gamma-BHC (Lindane)	0.010	U
76-44-8-----	Heptachlor	0.010	U
309-00-2-----	Aldrin	0.010	U
1024-57-3-----	Heptachlor epoxide	0.010	U
959-98-8-----	Endosulfan I	0.010	U
60-57-1-----	Dieldrin	0.020	U
72-55-9-----	4,4'-DDE	0.020	U
72-20-8-----	Endrin	0.020	U
33213-65-9-----	Endosulfan II	0.020	U
72-54-8-----	4,4'-DDD	0.020	U
1031-07-8-----	Endosulfan sulfate	0.020	U
50-29-3-----	4,4'-DDT	0.020	U
72-43-5-----	Methoxychlor	0.10	U
53494-70-5-----	Endrin ketone	0.020	U
7421-36-3-----	Endrin aldehyde	0.020	U
5103-71-9-----	alpha-Chlordane	0.010	U
5103-74-2-----	gamma-Chlordane	0.010	U
8001-35-2-----	Toxaphene	1.0	U

2E  
WATER PESTICIDE SURROGATE RECOVERY

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CT086

SAS No.:

SDG No.: 022S01

GC Column(1): DB5

ID: 0.53 (mm)

GC Column(2): DB1701

ID: 0.53 (mm)

	EPA SAMPLE NO.	TCX 1 %REC #	TCX 2 %REC #	DCB 1 %REC #	DCB 2 %REC #	OTHER (1)	OTHER (2)	TOT OUT
01	PBLK01	90	90	80	80			0
02	PLCS01	80	75	70	75			0
03	O1022S01	65	70	22*	25*			2
04	O1021S01	75	85	50	60			0
05	O1021S01MS	65	65	55	65			0
06	O1021S01MSD	80	75	60	70			0
07								
08								
09								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								
21								
22								
23								
24								
25								
26								
27								
28								
29								
30								

ADVISORY  
QC LIMITS

S1 (TCX) = Tetrachloro-m-xylene (45-125)

S2 (DCB) = Decachlorobiphenyl (34-133)

# Column to be used to flag recovery values

\* Values outside of QC limits

D Surrogate diluted out

FORM 3  
WATER PESTICIDE LAB CONTROL SAMPLE

Lab Name: CEIMIC

Contract: TETRA TECH

Lab Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

Matrix Spike - Sample No.: PLCS01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
alpha-BHC	0.10		0.084	84	23-130
beta-BHC	0.10		0.084	84	41-111
delta-BHC	0.10		0.086	86	32-126
gamma-BHC (Lindane)	0.10		0.085	85	34-119
Heptachlor	0.10		0.074	74	28-113
Aldrin	0.10		0.082	82	20-122
Heptachlor epoxide	0.10		0.083	83	39-119
Endosulfan I	0.10		0.031	31	22-111
Dieldrin	0.10		0.084	84	39-110
4,4'-DDE	0.10		0.086	86	36-115
Endrin	0.10		0.090	90	47-128
Endosulfan II	0.10		0.045	45	27-122
4,4'-DDD	0.10		0.085	85	33-116
Endosulfan sulfate	0.10		0.081	81	28-132
4,4'-DDT	0.10		0.080	80	20-150
Methoxychlor	0.10		0.10	100	50-134
Endrin ketone	0.10		0.092	92	47-118
Endrin aldehyde	0.10		0.090	90	43-136
alpha-Chlordane	0.10		0.080	80	41-125
gamma-Chlordane	0.10		0.082	82	41-125

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 0 outside limits

Spike Recovery: 0 out of 20 outside limits

COMMENTS:

## FORMIII-MS/MSD

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

N : CEIMIC CORP

Contract: TETRA TECH

Code: CEIMIC

Case No.: CTO86

SAS No.:

SDG No.: 022S01

ent Sample ID.: 01021S01MS/MSD

Sample ID.: 990922-02MS/MSD

rix: Aqueous

COMPOUND	SPIKE ADDED (ug/L )	MS RECOVERY %	MSD RECOVERY %	% RPD	QC-LIMITS %
=====	=====	=====	=====	=====	=====
Alpha-BHC	0.10	74	85	14	23-130
Beta-BHC	0.10	79	85	7	41-111
Delta-BHC	0.10	81	90	11	32-126
Gamma-BHC (Lindane)	0.10	77	89	14	34-119
Heptachlor	0.10	64	74	14	28-113
Dieldrin	0.10	73	86	16	20-122
Heptachlor Epoxide	0.10	74	86	15	39-119
Endosulfan I	0.10	28*	32	13	22-111
Dieldrin	0.10	77	87	12	39-110
,4'-DDE	0.10	81	87	7	36-115
Dieldrin	0.10	84	93	10	47-128
Endosulfan II	0.10	42	47	11	27-122
,4'-DDD	0.10	79	85	7	33-116
Endosulfan Sulfate	0.10	75	85	13	28-132
,4'-DDT	0.10	74	81	9	20-150
Heptachlor	0.10	96	100	4	50-134
Dieldrin Ketone	0.10	82	90	9	47-118
Dieldrin Aldehyde	0.10	80	91	13	43-136
Alpha-Chlordane	0.10	74	86	15	41-125
Gamma-Chlordane	0.10	76	87	13	41-125

MENTS:

FORMIII-MS/MSD



## PCB ANALYSES

POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-2S-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-01  
Date Sample Extracted: 10/30/99  
Date Sample Analyzed: 11/10/99  
Associated Method Blank: P1030-B3  
Final Extract Volume (mL): 2.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

Surrogate Spike Recovery

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	25	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AWB

Approved by: HL

**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS  
Client Sample ID: BRO-102-1S-01  
Date Sampled: 10/27/99  
Date Sample Received: 10/28/99  
Matrix: Aqueous

Laboratory ID: 990922-02  
Date Sample Extracted: 10/30/99  
Date Sample Analyzed: 11/10/99  
Associated Method Blank: P1030-B3  
Final Extract Volume (mL): 2.0  
Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	55	56 - 111
Decachlorobiphenyl	40	34 - 129

\* These limits are provided for advisory purposes.

Reported by: SWB

Approved by: KL

**METHOD BLANK**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank ID: P1030-B3

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Concentration in: ug/L (ppb)

Target Analyte	Sample Concentration	Quantitation Limit
Aroclor-1016	ND	0.200
Aroclor-1221	ND	0.400
Aroclor-1232	ND	0.200
Aroclor-1242	ND	0.200
Aroclor-1248	ND	0.200
Aroclor-1254	ND	0.200
Aroclor-1260	ND	0.200

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	80	56 - 111
Decachlorobiphenyl	75	34 - 129

\* These limits are provided for advisory purposes.

Reported by: W3

Approved by: [Signature]

**LABORATORY CONTROL SUMMARY**  
**POLYCHLORINATED BIPHENYLS (PCB)**  
by SW846 Method 8080A

Client: Tetra Tech NUS

Blank Spike ID: P1030-LCS3

Matrix: Aqueous

Ceimic Project: 990922

Date Sample Analyzed: 11/10/99

Date Sample Prepared: 10/30/99

Associated Method Blank: P1030-B3

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Blank Spike Result	Blank Spike Recovery(%)	QC Limits(%)*
Aroclor-1016	1.0	0.65	65	30 - 150
Aroclor-1260	1.0	0.70	70	47 - 127

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	56 - 111
Decachlorobiphenyl	70	34 - 129

\* These limits are provided for advisory purposes.

Reported by: WB

Approved by: \_\_\_\_\_

**MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY  
POLYCHLORINATED BIPHENYLS (PCB)  
by SW846 Method 8080A**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Date Sample Received: 10/28/99

Matrix: Aqueous

Laboratory ID: 990922-02MS

Date Sample Extracted: 10/30/99

Date Sample Analyzed: 11/10/99

Associated Method Blank: P1030-B3

Final Extract Volume (mL): 2.0

Dilution Factor: 1

Concentration in: ug/L (ppb)

Target Analyte	Spike Added	Sample Concentration	Matrix Spike Concentration	Matrix Spike Recovery(%)
Aroclor-1016	2.00	ND	1.4	70
Aroclor-1260	2.00	ND	1.6	80

Target Analyte	Matrix Spike Duplicate Concentration	Matrix Spike Duplicate Recovery(%)	RPD(%)	QC Limits(%)*	
				RPD	Recovery
Aroclor-1016	1.2	60	18.2	20	30 - 150
Aroclor-1260	1.2	60	26.1	20	47 - 127

ND = Not detected

**Surrogate Spike Recovery**

Surrogate Compound	Matrix Spike Recovery(%)	Matrix Spike Duplicate Recovery(%)	QC Limits(%)*
Tetrachloro-m-xylene	75	75	56 - 111
Decachlorobiphenyl	60	50	34 - 129

\* These limits are provided for advisory purposes.

Reported by: AWB

Approved by: AL

## **METAL ANALYSES**

**CEIMIC**  
**Corporation**  
*"Analytical Chemistry for Environmental Management"*

METHOD BLANK  
TOTAL METALS  
SW846 METHOD 6010B AND 7470A

Client: Tetra Tech NUS

Ceimic Project: 990922

Blank ID: PBW

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	ND	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	ND	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	ND	0.50
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	ND	0.10
Lead	1101	ND	0.005
Magnesium	1101	ND	0.50
Manganese	1101	ND	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	ND	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by:

*Jeff Jones*

Approved by:

*Donald Fortinelli*

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**CEIMIC  
Corporation**  
*"Analytical Chemistry for Environmental Management"*

**TOTAL METALS**  
**SW846 METHOD 6010B AND 7470A**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-01

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	10.6	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	0.049	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	0.79	0.50
Chromium	1101	0.021	0.020
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	10.1	0.10
Lead	1101	0.010	0.005
Magnesium	1101	0.60	0.50
Manganese	1101	0.087	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	6.08	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by: *Angela Jones*

Approved by: *David Zetouli*

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**CEIMIC  
Corporation**  
*"Analytical Chemistry for Environmental Management"*

**TOTAL METALS**  
**SW846 METHOD 6010B AND 7470A**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Sample Concentration	Quantitation Limit
Aluminum	1101	0.63	0.20
Antimony	1101	ND	0.050
Arsenic	1101	ND	0.010
Barium	1101	0.011	0.010
Beryllium	1101	ND	0.010
Cadmium	1101	ND	0.010
Calcium	1101	ND	0.50
Chromium	1101	ND	0.020
Cobalt	1101	ND	0.020
Copper	1101	ND	0.020
Iron	1101	12.8	0.10
Lead	1101	ND	0.005
Magnesium	1101	ND	0.50
Manganese	1101	0.131	0.010
Mercury	1101	ND	0.0002
Nickel	1101	ND	0.040
Potassium	1101	ND	0.50
Selenium	1101	ND	0.010
Silver	1101	ND	0.010
Sodium	1101	3.60	0.50
Thallium	1101	ND	0.010
Vanadium	1101	ND	0.050
Zinc	1101	ND	0.020

ND = Not Detected

Reported by:                     

Approved by:                     

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**CEIMIC**  
**Corporation**  
*"Analytical Chemistry for Environmental Management"*

**SPIKE SAMPLE SUMMARY**  
**TOTAL METALS**  
**SW846 METHOD 6010B AND 7470A**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Sample Result	Predigest Spike Added	Spiked Sample Result	Recovery(%)		
				Predigest Spike	QC Limits	Post Digest Spike
Aluminum	0.632	2.00	2.32	84	75 - 125	NR
Aluminum	0.632	2.00	2.37	87	75 - 125	NR
Antimony	ND	0.500	0.477	95	75 - 125	NR
Antimony	ND	0.500	0.484	97	75 - 125	NR
Arsenic	ND	0.0400	0.0358	89	75 - 125	NR
Arsenic	ND	0.0400	0.0392	98	75 - 125	NR
Barium	0.0110	2.00	1.77	88	75 - 125	NR
Barium	0.0110	2.00	1.78	88	75 - 125	NR
Beryllium	ND	0.0500	0.0450	90	75 - 125	NR
Beryllium	ND	0.0500	0.0457	91	75 - 125	NR
Cadmium	ND	0.0500	0.0446	89	75 - 125	NR
Cadmium	ND	0.0500	0.0451	90	75 - 125	NR
Calcium	ND	2.00	2.11	106	75 - 125	NR
Calcium	ND	2.00	2.14	107	75 - 125	NR
Chromium	ND	0.200	0.180	90	75 - 125	NR
Chromium	ND	0.200	0.183	91	75 - 125	NR
Cobalt	ND	0.500	0.443	89	75 - 125	NR
Cobalt	ND	0.500	0.446	89	75 - 125	NR
Copper	ND	0.250	0.221	88	75 - 125	NR
Copper	ND	0.250	0.220	88	75 - 125	NR
Iron	12.8	1.00	13.1	30	**	NR
Iron	12.8	1.00	14.2	140	**	NR
Lead	ND	0.0200	0.0190	95	75 - 125	NR
Lead	ND	0.0200	0.0197	98	75 - 125	NR
Magnesium	ND	2.00	2.08	86	75 - 125	NR
Magnesium	ND	2.00	2.13	88	75 - 125	NR
Manganese	0.131	0.500	0.566	87	75 - 125	NR
Manganese	0.131	0.500	0.579	90	75 - 125	NR
Mercury	ND	0.00100	0.00101	101	75 - 125	NR
Mercury	ND	0.00100	0.000970	97	75 - 125	NR
Nickel	ND	0.500	0.440	88	75 - 125	NR
Nickel	ND	0.500	0.440	88	75 - 125	NR
Potassium	ND	2.00	1.72	86	75 - 125	NR

Reported by: Vance Jones

Approved by: Donald Lattrell

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**CEIMIC  
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**SPIKE SAMPLE SUMMARY  
TOTAL METALS  
SW846 METHOD 6010B AND 7470A**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Sample Result	Predigest Spike Added	Spiked Sample Result	Recovery(%)		
				Predigest Spike	QC Limits	Post Digest Spike
Potassium	ND	2.00	1.65	83	75 - 125	NR
Selenium	ND	0.0100	0.0087 <del>ND</del>	89	75 - 125	NR
Selenium	ND	0.0100	0.0105	105	75 - 125	NR
Si <sup>1</sup>	ND	0.0500	0.0493	99	75 - 125	NR
Si <sup>2</sup>	ND	0.0500	0.0490	98	75 - 125	NR
Sodium	3.60	2.00	5.21	81	75 - 125	NR
Sodium	3.60	2.00	5.51	95	75 - 125	NR
Thallium	ND	0.0500	0.0463	93	75 - 125	NR
Thallium	ND	0.0500	0.0463	93	75 - 125	NR
Vanadium	ND	0.500	0.461	92	75 - 125	NR
Vanadium	ND	0.500	0.461	92	75 - 125	NR
Zinc	ND	0.500	0.439	88	75 - 125	NR
Zinc	ND	0.500	0.442	88	75 - 125	NR

ND = Not Detected

NR = Not Required

\*\* Sample result exceeds four times the spike added value. There is no control limit in this case.

Reported by: James Jones

Approved by: Donald Tortorelli

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**LABORATORY CONTROL SAMPLE SUMMARY**  
**TOTAL METALS**  
**SW846 METHOD 6010B AND 7470A**

Client: Tetra Tech NUS

Ceimic Project: 990922

Laboratory Control Spike ID: LCSW

Date Analysis Completed: 11/09/99

Matrix: Aqueous

Concentration in: mg/L (ppm)

Target Analyte	Preparation Batch	Spike Added	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Aluminum	1101	10.0	8.88	88.8	85 - 111
Antimony	1101	0.500	0.484	96.8	80 - 116
Arsenic	1101	0.200	0.194	97.0	83 - 119
Barium	1101	10.0	8.96	89.6	86 - 111
Beryllium	1101	0.250	0.227	90.8	84 - 114
Cadmium	1101	0.100	0.0910	91.0	78 - 109
Calcium	1101	25.0	22.4	89.6	84 - 110
Chromium	1101	1.00	0.912	91.2	84 - 116
Cobalt	1101	2.50	2.24	89.6	82 - 115
Copper	1101	1.25	1.10	88.0	87 - 109
Iron	1101	5.00	4.49	89.8	85 - 111
Lead	1101	0.200	0.187	93.5	81 - 112
Magnesium	1101	25.0	22.2	88.8	86 - 112
Manganese	1101	2.50	2.25	90.0	79 - 120
Mercury	1101	0.00197	0.00196	101.5	80 - 120
Nickel	1101	2.50	2.22	88.8	83 - 112
Potassium	1101	25.0	22.2	88.8	83 - 110
Selenium	1101	0.200	0.206	103.0	83 - 126
Silver	1101	1.25	1.20	96.0	73 - 124
Sodium	1101	25.0	22.3	89.2	86 - 110
Thallium	1101	0.200	0.185	92.5	81 - 117
Vanadium	1101	2.50	2.35	94.0	79 - 121
Zinc	1101	2.50	2.21	88.4	86 - 107

Reported by:

*James Jiang*

Approved by:

*Donald F. Feltz*

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## **INORGANIC ANALYTES**

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**QUALITY CONTROL  
METHOD BLANK**

Client: Tetra Tech NUS

Blank ID: PBW

Ceimic Project: 990922

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Total Cyanide	ND	mg/L	0.01	11/01/98	11/01/98

ND = Not Detected

Reported by:

Jeffrey D. Maymon

Approved by:

Donald Zetocelli

**CEIMIC  
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*"Analytical Chemistry for Environmental Management"*

**INORGANIC ANALYTES**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-2S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-01

Date Sample Received: 10/28/99

Matrix: Aqueous

Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Cyanide	ND	mg/L	0.01	11/01/98	11/01/98

ND = Not Detected

Reported by: Jeffrey D. Maymon

Approved by: 



**CEIMIC**  
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INORGANIC ANALYTES

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02

Date Sample Received: 10/28/99

Matrix: Aqueous

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Target Analyte	Result	Units	Method Reporting Limit	Date Prep'd	Date Analyzed
Total Cyanide	ND	mg/L	0.01	11/01/98	11/01/98

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ND = Not Detected

Reported by: \_\_\_\_\_

*Jeffrey D. Maymon*

Approved by: \_\_\_\_\_

*KH*

**CEIMIC  
Corporation**  
*"Analytical Chemistry for Environmental Management"*

**SPIKE SAMPLE SUMMARY  
INORGANIC ANALYTES**

Client: Tetra Tech NUS

Client Sample ID: BRO-102-1S-01

Date Sampled: 10/27/99

Laboratory ID: 990922-02Spk

Date Sample Received: 10/28/99

Concentration in: mg/L (ppm)

Matrix: Aqueous

Target Analyte	Sample Result	Spike Added	Spiked Sample Result	Recovery(%)	
				Predigest Spike	QC Limits
Total Cyanide	ND	0.050	0.051	102	75-125
Total Cyanide	ND	0.050	0.040	80	75-125

ND = Not Detected

Reported by: Jeffrey D. Maymon

Approved by: 

**CEIMIC  
Corporation**  
*"Analytical Chemistry for Environmental Management"*

**QUALITY CONTROL**  
**LABORATORY CONTROL SAMPLE SUMMARY**

Client: Tetra Tech NUS

Laboratory Control Spike ID: QC

Ceimic Project: 990922

Concentration in: mg/L (ppm)

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Target Analyte	Date Prep'd	Date Analyzed	Spike Added	Lab Control Spike Result	Lab Control Spike Recovery(%)	QC Limits(%)
Total Cyanide	11/01/98	11/01/98	0.080	0.070	88.0	80-120

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Reported by: Jeffrey D. Maymon Approved by: DX